RICA'S BIGGEST INDUSTRY MONTHLY FOR AMERICA'S BIGGEST INDUSTRY

House & Home

OCTOBER 1958 SIX DOLLARS A YEAR—ONE DOLLAR A COPY

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LIBRARY

Wood: there's big news about this oldest material, page 122

How one builder sells 23 houses a day—every day, page 94

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Arrived: the house with an all-aluminum skin, page 112

S BEGINS ON PAGE 37 / NEW WAYS TO BUILD BETTER, PAGE 145 / COMPLETE CONTENTS, PAGE 85





Carefree Living... so easy to own!

Builders using Congoleum-Nairn Vinylbest* "Brushwood" offer customers a welcomed PLUS in their new homes. Casual, easy to live with, yet so thoroughly up-to-date, Brushwood* is a brand new Congoleum-Nairn Vinylbest floor tile. The modern grained effect fits magnificently with natural woods or informal appointments. "Brushwood" is exclusive with Vinylbest —the all-purpose tile that's used (and useful) throughout the house from basement to attic. Congoleum-Nairn Vinylbest "Brushwood" is easy to install . . . saving costly labor. Tough—but—lovely Vinylbest, with its special high gloss, shrugs off dirt . . . defies grease, moisture, alcohol, solvents . . . and lasts for years and years. And . . . only a damp cloth is needed for cleaning. Congoleum-Nairn "Brushwood" Vinylbest fully meets FHA Title 1 requirements.

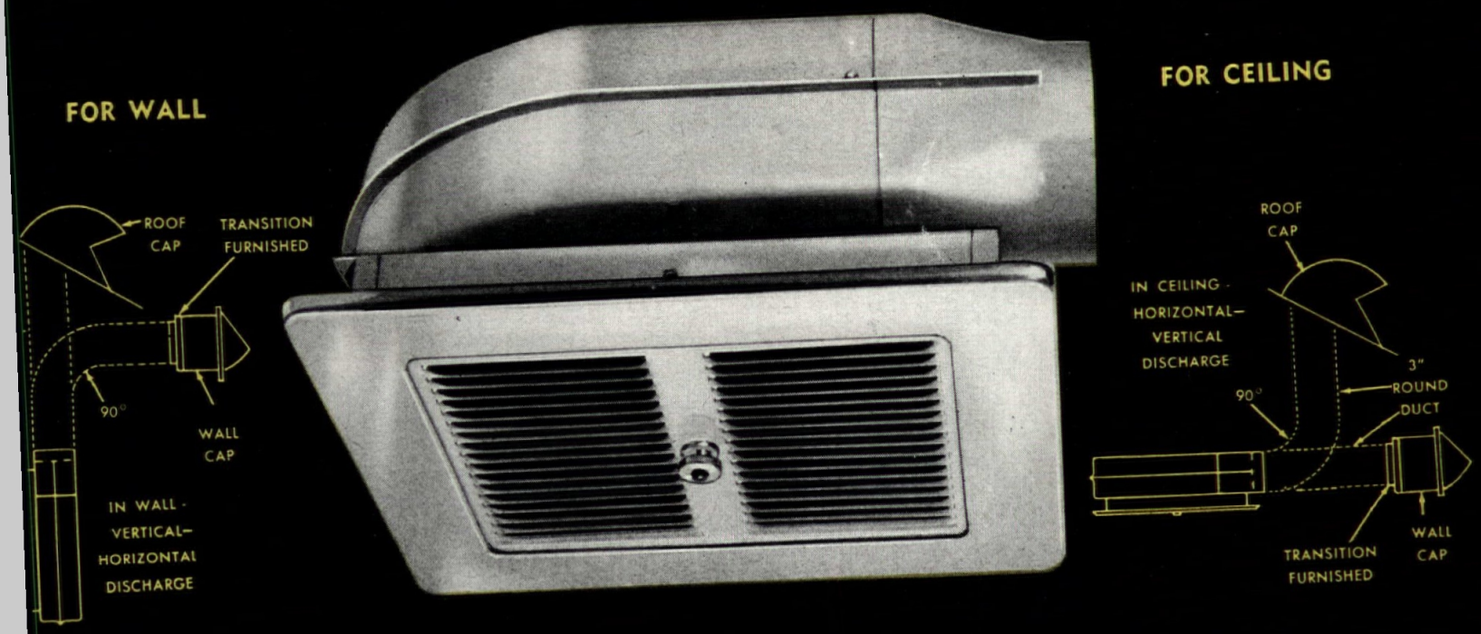
See "Brushwood," in a variety of colors and the rest of the Vinylbest tile line at your Congoleum-Nairn dealer's. While you're there, take a look at the other famous Congoleum-Nairn floors† so many smart builders are using nowadays. They all make building and selling easier, faster, and more profitable for you.

Congoleum-Nairn Inc., Kearny, N. J.

Congoleum-Nairn
FINE FLOORS

†FOR HOME, BUSINESS, INSTITUTIONS; BY THE YARD AND TILES — INLAID LINOLEUM • NAIRON® PLASTICS • VINYLBEST* TILE • CORK TILE • RUBBER TILE ASPHALT TILE • PRINTED FLOOR AND WALL COVERINGS — CONGOLEUM® AND CONGOWALL® • RUGS AND BROADLOOM — LOOMWEVE® • *TRADEMARK

Less than 4 inches thin!

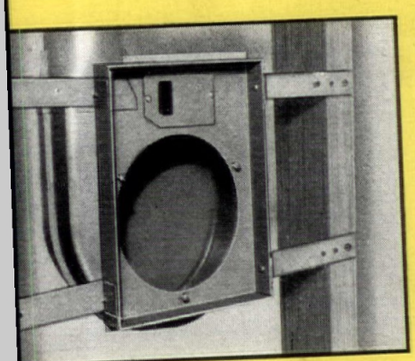


NEW NUTONE Bathroom Fan

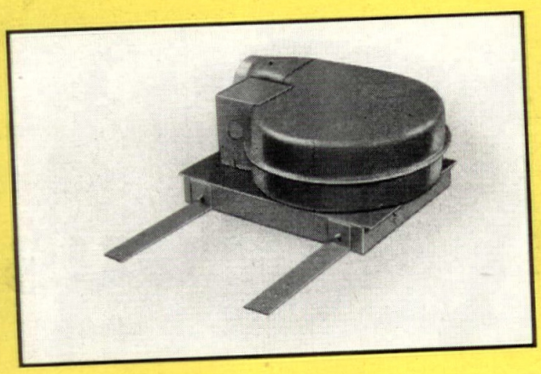
MODEL 883 • DESIGNED ESPECIALLY TO GET RID OF ODORS AND MOISTURE!

Install this "extra-thin" housing anywhere. FOR WALLS this compact blower fan fits in between standard 2 x 4 stud spacing. Fan is equipped with a built-in back draft damper.

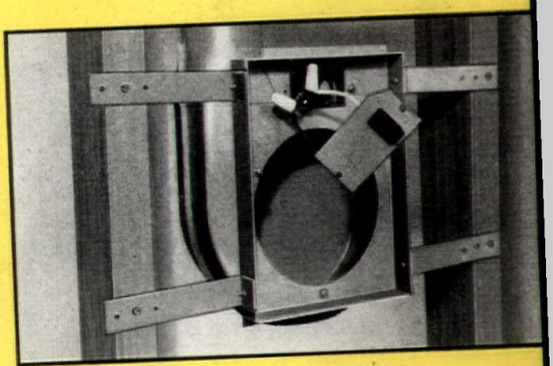
FOR CEILINGS the handy adjustable brackets permit installation between ceiling joists. Discharges directly to outside or into attic. Transition allows 3" duct to fit 4" wall cap.



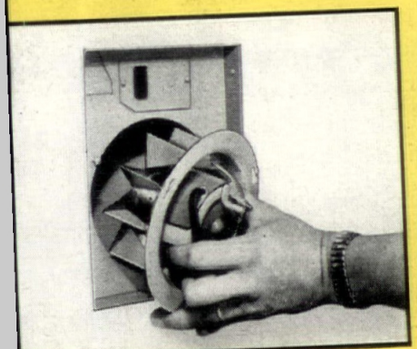
adjustable mounting holds fan g and prevents vibration noise.



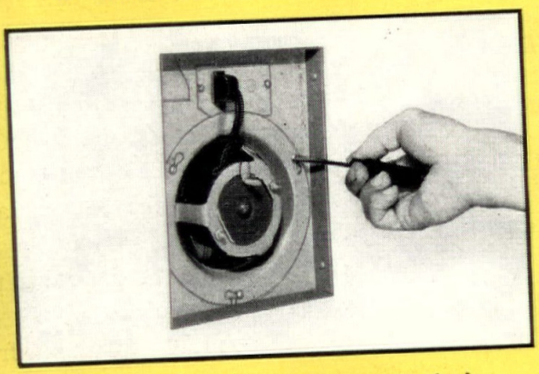
Brackets allow 3/8" to 3/4" variation in thickness of dry-wall or plaster.



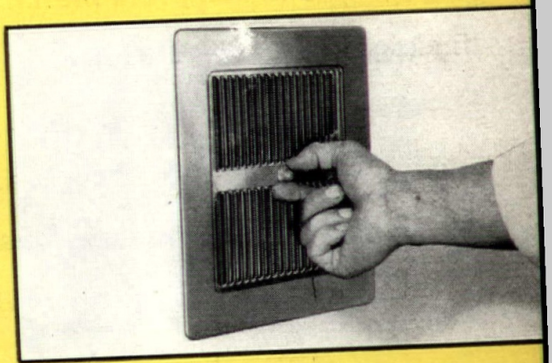
"Easy-Access" outlet box for wiring leads to house line. Plug in receptacle.



lly designed blower wheel built d motor for quieter operation.

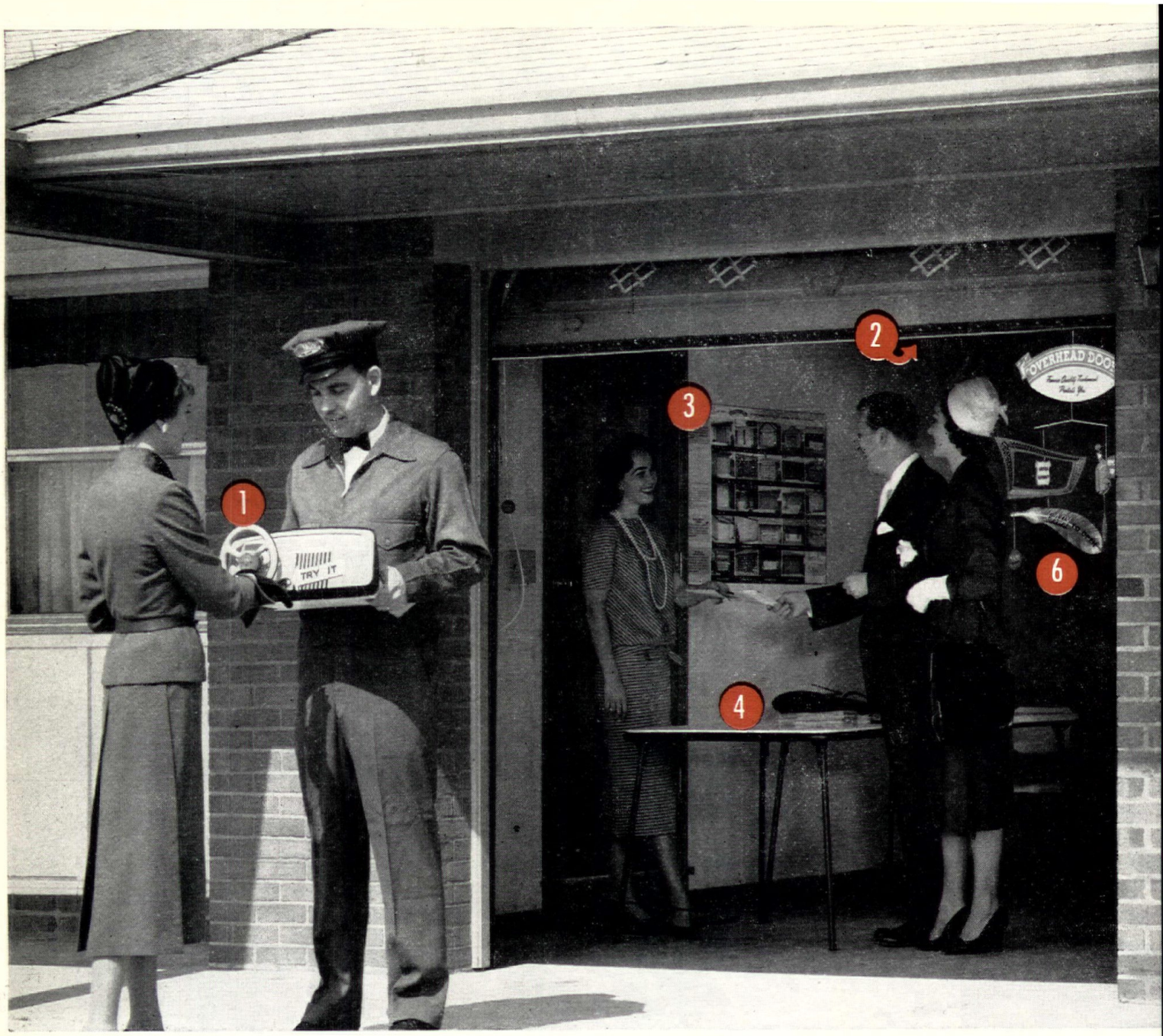


Keyhole slots on supporting rim lock bracket. Moisture resistant motor.



Wide flange grille extends for 3/4 inch on all sides to cover rough cutouts.

NuTone **WRITE FOR CATALOGS . . NUTONE, INC. • DEPT HH-10, CINCINNATI 27, OHIO**



HERE'S THE FAMOUS NAME

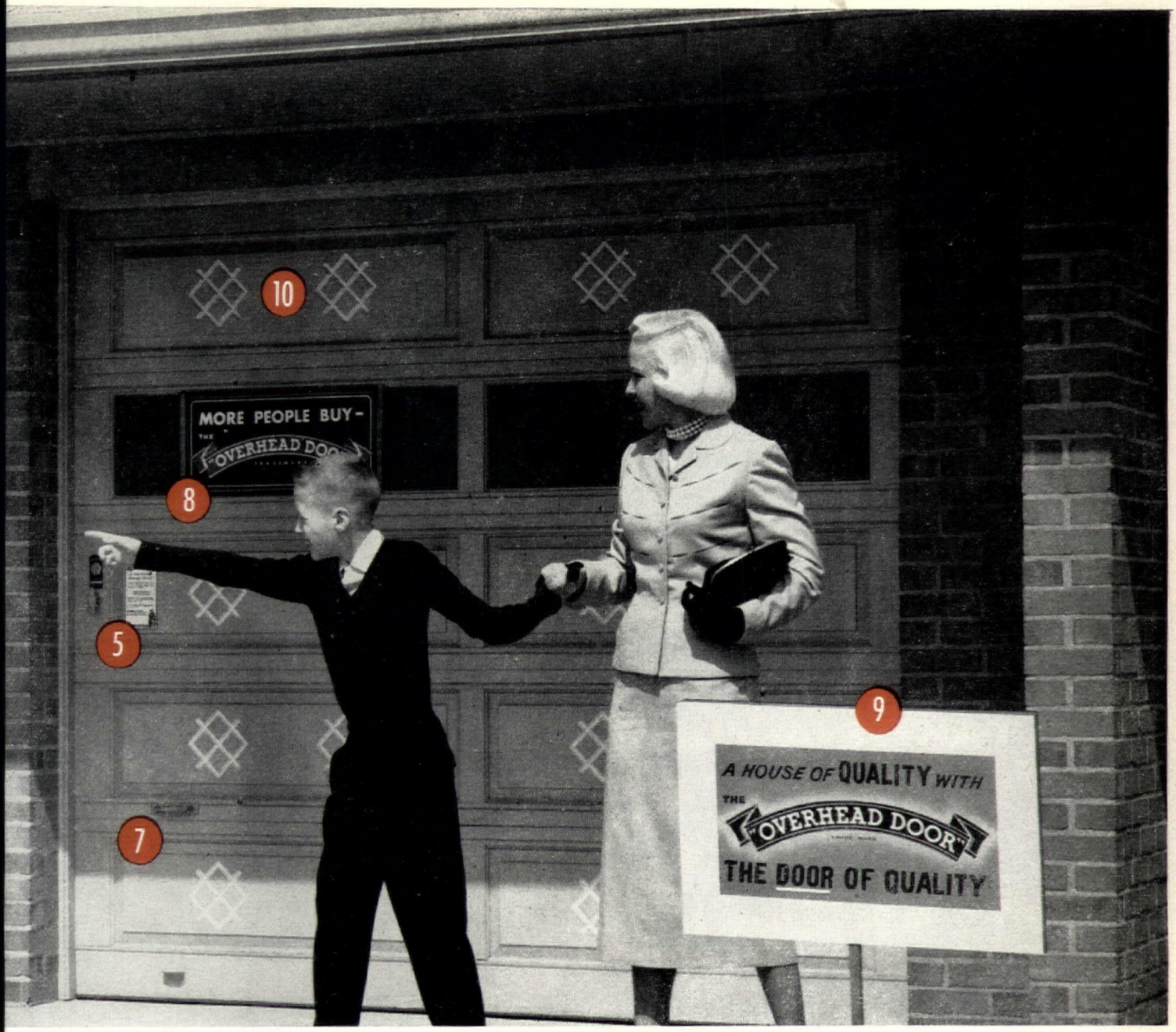
Use this complete merchandising package with The "OVERHEAD DOOR" —the famous-name, low cost product every prospect knows —to demonstrate obvious quality and value in your model home!

One-fourth to one-third of the very face of your model home can be *a demonstrator that wins sales faster!* Simply use The "Overhead Door" and powerful sales aids available to every home builder. Then the largest moving part of your model home—a beautiful, weather-sealed wall that glides out of sight with a fingertip lift—quickly shows the quality, craftsmanship and precision construction that goes into your homes.

By including the famous radio-controlled Ultronic Door Operator (1 & 2) in your model home, you gain additional showmanship . . . . dramatize prestige, push-button living in your model home!

Note the items available from your distributor of The "Overhead Door" . . . then use them to win more sales—faster! They'll help you take full advantage of national and local advertising!

HOUSE & HOME, October 1958 Volume 14, Number 4. Published monthly by TIME, INC., 9 Rockefeller Plaza, New York 20, N. Y. Entered as second-class matter at New York, N. Y. Subscription price $6.00 a year



THAT HELPS SELL HOMES!

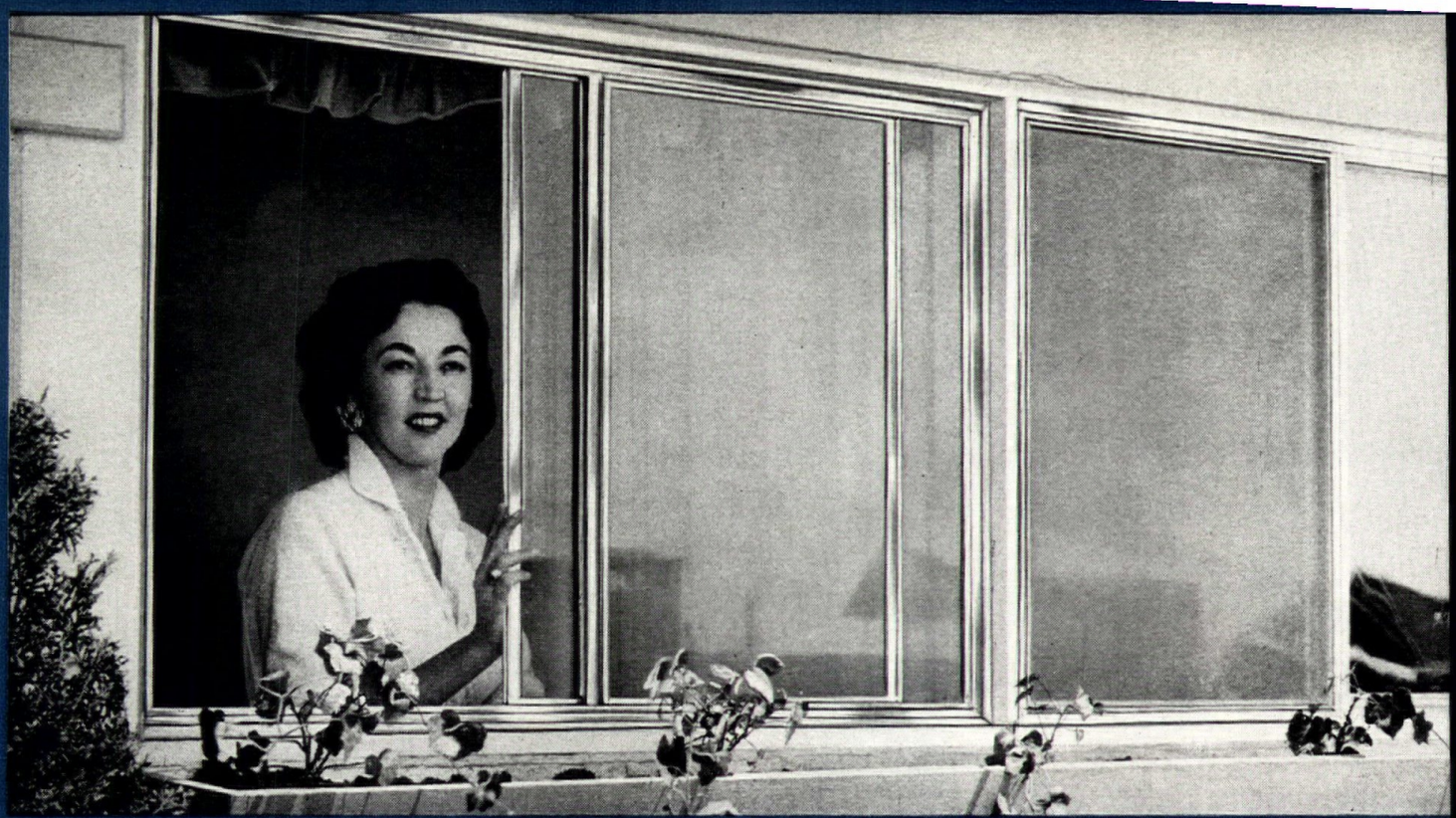
1. Dashboard-demonstrator of Ultronic control.
2. Magic-box containing Ultronic operator.
3. Colorful wall chart of styles and sizes.
4. Beautiful literature showing all advantages.
5. One-year Warranty given with each installation.
6. Dramatic mobile presenting sales points.
7. Smooth-operating door as self-demonstrator.
8. Sign to identify The "OVERHEAD DOOR."
9. Yard sign to show that you build with the best.
10. Option of 15 raised and routed designs.
- Sales training on dramatic demonstration of The "OVERHEAD DOOR."
- Local newspaper advertising materials.

THE "OVERHEAD DOOR"
TRADE MARK

OVERHEAD DOOR CORPORATION

General Offices: Hartford City, Indiana
Manufacturing Distributors: Cortland, N. Y.; Hillside, N. J.; Lewistown, Pa; Marion, Ohio; Nashua, N. H.
Manufacturing Divisions: Dallas, Tex.; Portland, Ore. • In Canada: Oakville, Ont.

FOR 37 YEARS . . . MORE PEOPLE HAVE BOUGHT THE "OVERHEAD DOOR" THAN ANY OTHER BRAND!



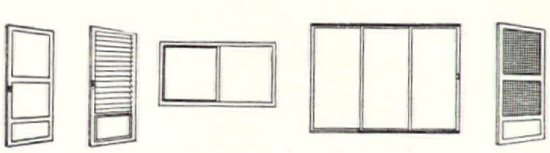
IT TAKES A WINDOW LIKE *this* TO SELL TODAY!

Capitol PRIME SLIDING WINDOWS have features no other can match

Capitol is the first manufacturer to design a prime sliding window with a *positive* air-tight, weather-tight seal. The new Capitol aluminum prime slider uses a special compressive vinyl seal and employs a new design of the meeting rails that is so efficient that wind-driven water at hurricane force cannot get through!

Sell Capitol and you'll further benefit from the product development and sales experience of Capitol, world's largest manufacturer of aluminum doors.

Keep in mind that you can get your aluminum combination storm doors and windows from Capitol, too.



PRIME WINDOWS • ROLLING GLASS DOORS AND SCREENS • COMBINATION DOORS AND WINDOWS • JALOUSIES • EXTRUSIONS

Capitol



RIGID FRAME . . . EASY OPERATION . . . NOT A RATTLE

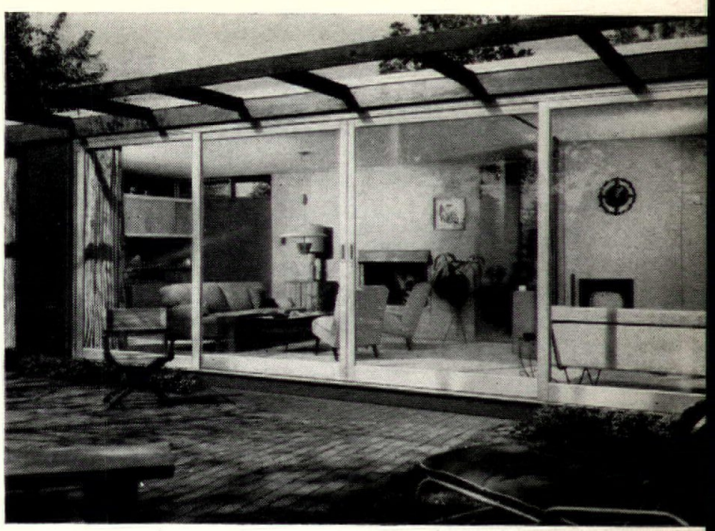
Heavy aluminum extrusions are welded into a rigid frame, reinforced by the strength of a fixed center bar. This design plus perfectly mitered corners make sagging or warping impossible. Sliding sections have nylon guides. Units slide freely at the touch of a finger.

PATENTED FINGER-TIP AUTOMATIC LOCK

This is the finest sliding window lock made today. Attractively designed, it opens at the touch of a finger . . . automatically locks when the window is closed. It's truly fool-proof.

EASY, TROUBLE-FREE INSTALLATION

With the simplicity of design and easy-to-follow instructions on every window, improper installation is virtually impossible.



A wonderful sales opportunity . . .

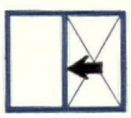
ROLLING GLASS DOORS

by Capitol

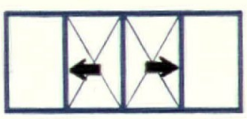
You can capitalize on the growing demand of homeowners for modern rolling glass doors with the complete line of magnificently engineered doors by Capitol.

Available in two and four-panel units, in widths from six to sixteen feet, in various heights to eight feet, Capitol rolling doors appeal to the builder because of their sound engineering, quality construction, ease of installation.

Perfect machining, careful assembly and factory checking assure trouble-free installations. You may have Capitol rolling doors with ¼" plate or Thermopane.



TYPE O-X



TYPE O-X-X-O

Capitol

CAPITOL'S PRODUCTS

A SINGLE SOURCE . . . SINGULAR SERVICE
for *all* your aluminum doors and windows

CAPITOL PRODUCTS CORPORATION
Mechanicsburg 210, Pa.

Please give me complete information as soon as possible on

- ☐ Capitol Prime Sliding Windows
- ☐ Capitol Rolling Glass Doors & Screens
- ☐ Capitol Combination Storm Doors & Windows

NAME_____

COMPANY_____

ADDRESS_____

_____

TELEPHONE_____

New builder designed

FRIGIDAIRE

1958 CUSTOM IMPERIAL FRIGIDAIRE DISHWASHERS

24″ Undercounter or Free-Standing, or 48″ Dishwasher-Sink Combination models, designed to match the complete family of Frigidaire Appliances.



Custom Imperial model

BRAND NEW DE LUXE MODEL 24″ UNDERCOUNTER DISHWASHER

De Luxe in every respect — same full size, same hold-more capacity, same Sheer Look full-width door as Custom Imperial models — to put you out front in home-selling features.

DISHWASHERS

WITH FAMOUS SHEER LOOK...PLUS MATCHING COLORS, MODULAR DESIGN, AND WANTED CONSUMER FEATURES!

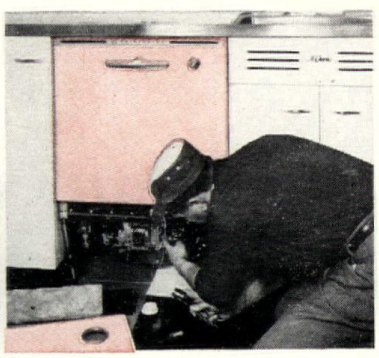
The big dishwasher news is Frigidaire . . . new in style, capacity, superb performance and new in "Minute Man" installation. Now, you can build-in, blend-in a full-size Frigidaire Dishwasher wherever it makes a kitchen more efficient, more salable—with less on-site labor cost!

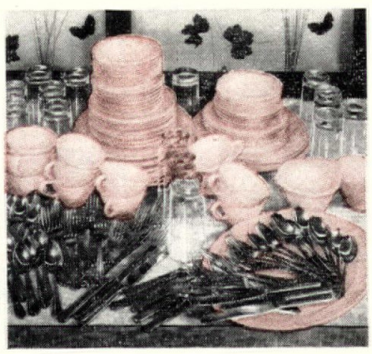
Builder designed 24″ modular construction means perfect undercounter fit in standard cabinets. You get complete flexibility of kitchen design with five Frigidaire Dishwasher models — Portable, Custom Imperial Undercounter, Free-Standing, or 48″ Sink-Combination, and the all-new Builder De Luxe Undercounter model—to satisfy every home buyer. And every model upgrades kitchens with the consumer-accepted Frigidaire Sheer Look, fashion leader of the appliance industry. You can choose from a rainbow of color to match the mood of every kitchen you plan with Sunny Yellow, Turquoise, Charcoal Gray, Mayfair Pink, White or optional Satin Chrome finish in some models.

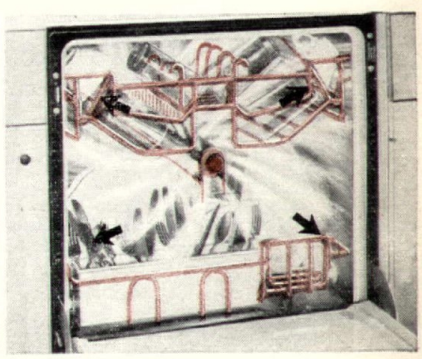
Every detail of new Frigidaire Dishwashers has been engineered with you, the builder, in mind. Plumbing and wiring connections are simplified and separated to speed installation. Drain system is designed for easier connection to high wall or simple gravity drains. Hook-up to a disposer is a snap, with factory-installed flexible adapter that eliminates threading fittings and cuts labor costs. Best of all, new Frigidaire Dishwashers are loaded with better living features for homemakers. See how new Frigidaire appliances can spark up your kitchen-planning and home-selling. Call your Frigidaire Custom Products Representative at the nearest Frigidaire distributing headquarters.

INSTALLS FAST! HOLDS UP TO 48% MORE, WASHES BETTER









Cost-cutting "Minute Man" undercounter installations are easy with sure-fit 24″ modular construction and new easy-to-reach wiring and plumbing connections. Even an apprentice helper can follow these simplified steps: (1) Rough-in utilities under counter or in cabinet—clearance 24″ W x 34-1/2″ H x 24″ D. (2) Slide unit into place and connect. Plumbing connections are made on left, wiring on the right—with complete front access for greater safety. (3) Attach bottom panel and the dishwasher is built-in! Optional left or right hand side panels available in choice of color for end-of-counter installation.

No other 24″ dishwasher matches new Frigidaire capacity . . . 12 full place-settings *plus** . . . as much as 147 pieces . . . up to 48% more than other leading models checked. And every model has Glide-to-You racks.

Every dish comes sparkle-clean, with Frigidaire Turbo-Spray washing action. All Custom Imperial models have two detergent wash cycles and three rinses, including a special automatic "Spots-Away" rinse.**

*National Electrical Manufacturers Association Standards.
**De Luxe model has a slightly different operating cycle and does not include "Spots-Away" or Dual Detergent Dispensers.

Designed today . . . for satisfied homeowners tomorrow!

FRIGIDAIRE

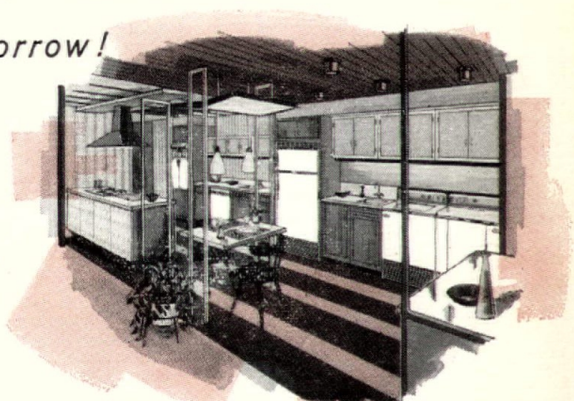
Built-ins

FRIGIDAIRE Division, *General Motors Corporation,*
Dayton 1, Ohio.

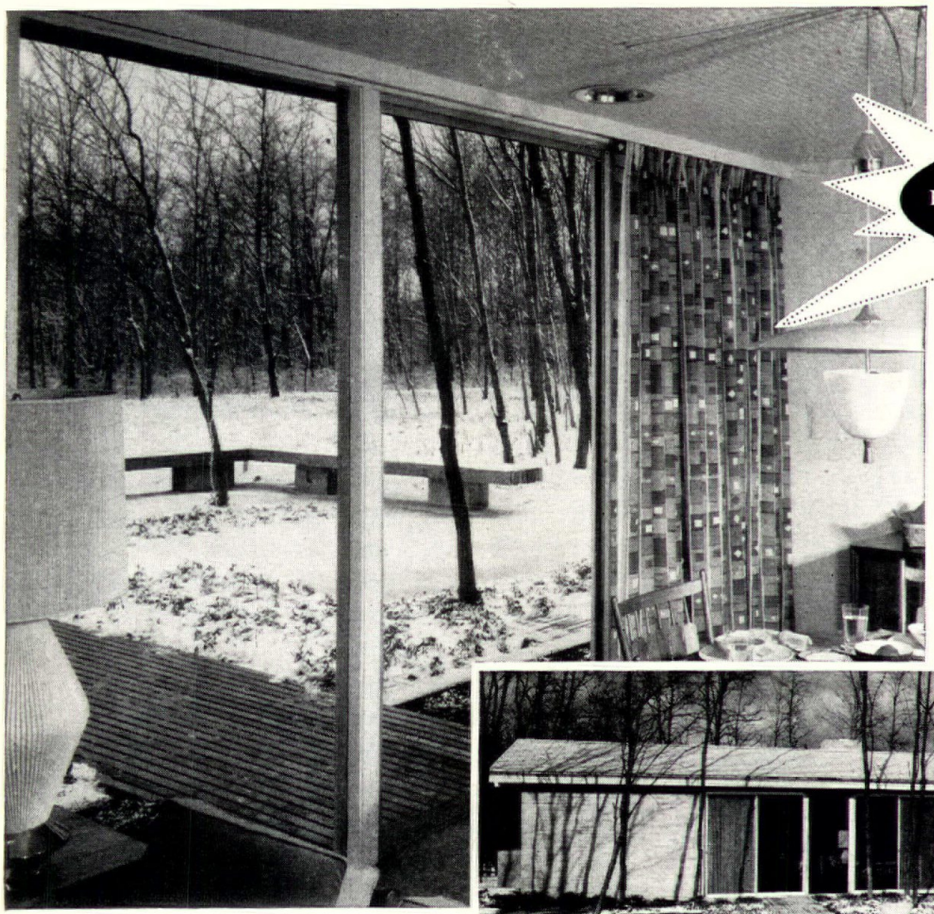
GM GOLDEN ANNIVERSARY
Frigidaire—Built and Backed by General Motors

Better-equipped kitchens are a must in today's home-selling market. See for yourself, how much more you—and your home buyers—get with new color-matched Frigidaire Built-in and Free-Standing Appliances—all with the most wanted features and years-ahead Sheer Look—*Plus!*

FOLD-BACK SURFACE UNITS
WALL OVENS AND COOKING TOPS
AUTOMATIC DISHWASHERS
FOOD WASTE DISPOSERS
REFRIGERATORS AND FREEZERS
ELECTRIC RANGES
WASHERS AND DRYERS
FULL-HOME HEATING AND COOLING
ROOM CONDITIONERS



Frigidaire Idea Kitchen — The Sea Star — showing typical blending of new Frigidaire Built-In and Free-Standing Appliances. Cabinets by Mutschler Bros.



McCALL'S
Better Living House
of 1958

Cincinnati, Ohio—*Two views of model house show AMERICAN LUSTRAGRAY glazing.* **Architects:** *Garber, Tweddell & Wheeler, AIA.* **Builder:** *Jacob Boettcher Company.* **Glazier:** *H. Neuer Glass Company... all of Cincinnati.*



Home owners enjoy "indoor-outdoor" living in comfort and privacy

with AMERICAN LUSTRAGRAY

GLARE REDUCING SHEET GLASS

Newly opened, this seven-room model house was built in the Cincinnati suburb of Wyoming, Ohio, under the sponsorship of McCall's magazine. It combines the best features of a European villa, an artist's studio, a Manhattan apartment, and contemporary American housing. Controlled daylighting through gray sheet glass is used to great advantage. It brings the outdoors inside, yet reduces solar glare and heat.

Two important housing problems are answered by this McCall's "Better Living House of 1958"—privacy and ease of upkeep. It is significant that AMERICAN LUSTRAGRAY was chosen to give exterior privacy along with interior comfort and excellent vision.

You can make your model homes, or any you build, more visually appealing to home buyers by having windows and sliding glass doors glazed with AMERICAN LUSTRAGRAY. This is being demonstrated time after time by home builders in various parts of the country. LUSTRAGRAY, a neutral gray sheet glass, reduces sun glare 50%, minimizing eyestrain and fatigue. It reduces heat transmission. It makes a permanently attractive appearance. It's economical.

So, to give your homes an exciting sales feature that prospects can *see*, use AMERICAN LUSTRAGRAY. It is available through more than 500 glass jobbers. Thicknesses: $\frac{3}{16}''$, $\frac{7}{32}''$, $\frac{1}{4}''$. Maximum size: 6′ x 10′. Check your classified telephone directory for listing.

AMERICAN WINDOW GLASS DIVISION

AMERICAN-SAINT GOBAIN CORPORATION

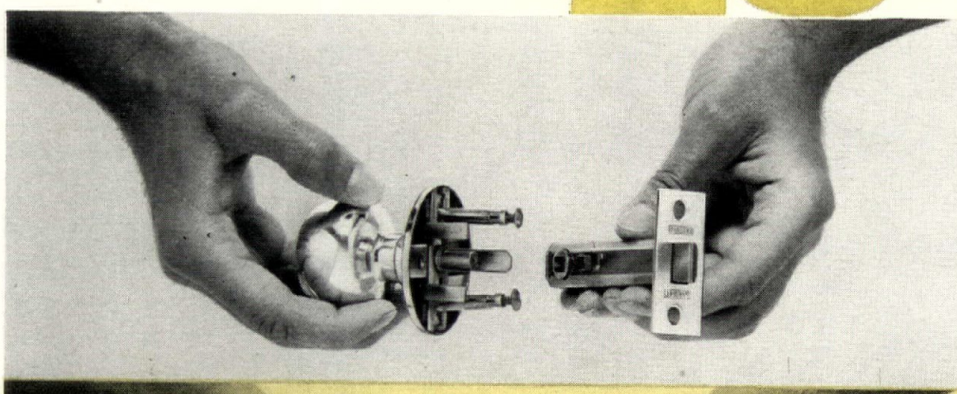
BLUE RIDGE GLASS

General Offices: FARMERS BANK BUILDING • PITTSBURGH 22, PA.

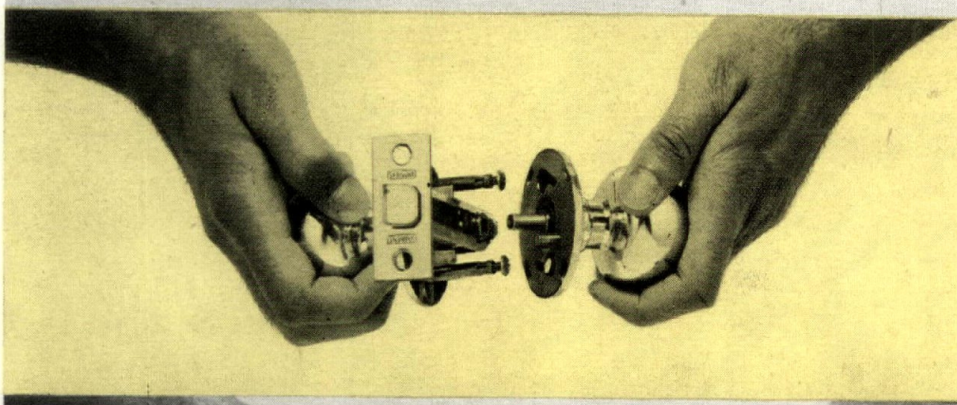
AMERICAN-SAINT GOBAIN CORPORATION is a merger of the former American Window Glass Company, Pittsburgh, Pa., and the former Blue Ridge Glass Corporation, Kingsport, Tenn. (which was a wholly-owned subsidiary of Saint-Gobain of Paris, France). American Window Glass Division plants are located in Arnold, Jeannette, Ellwood City, Pa.; Okmulgee, Okla. Blue Ridge Glass Division plant is located in Kingsport, Tenn.

WSW 7157-A

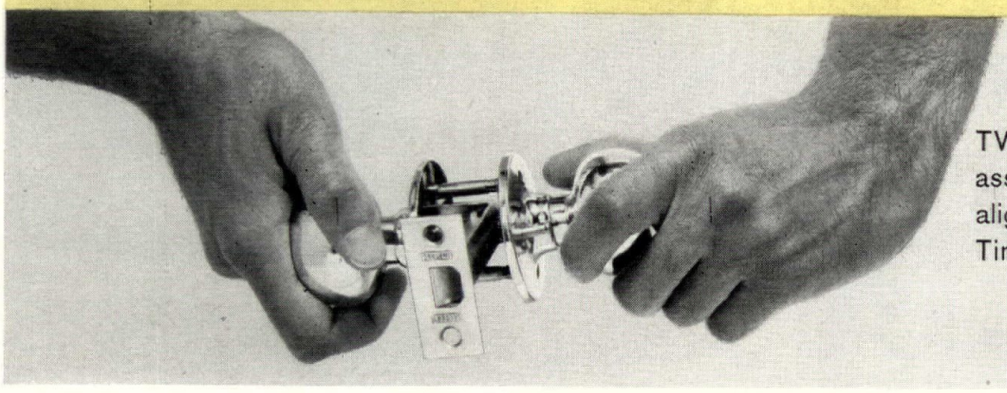
IMPROVED
ALIGNALOCK LATCHSET
assembles in 25 seconds!



Outside knob fits into pre-grooved latch assembly. Through screws are non-loosening, pre-set...



Inside knob, rose and slotted backplate snaps-on to pre-set screws...



TWIST... and assembly is complete, alignment perfect. Time 25 seconds.

What could be easier... simpler... faster?

The improved AlignaLock assembly will save you time and dollars in lock installation. Fewer parts—just 3 factory-assembled units—make installation quick, alignment foolproof.

Ask your Sargent supplier to demonstrate the new AlignaLock assembly. Or write Sargent & Company, New Haven 9, Connecticut, for a FREE SAMPLE MOUNT.

SARGENT

Now Selling

in every design type...
Colonial,
Contemporary,
Ranch,
Split Level...

"THE

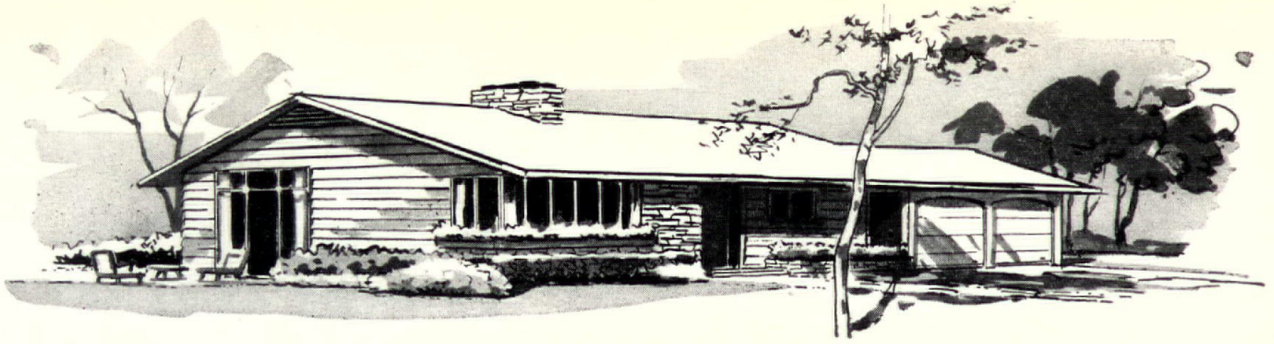


"The House of Ease" as built by Behymer Development Co., in Graeler Park, St. Louis.

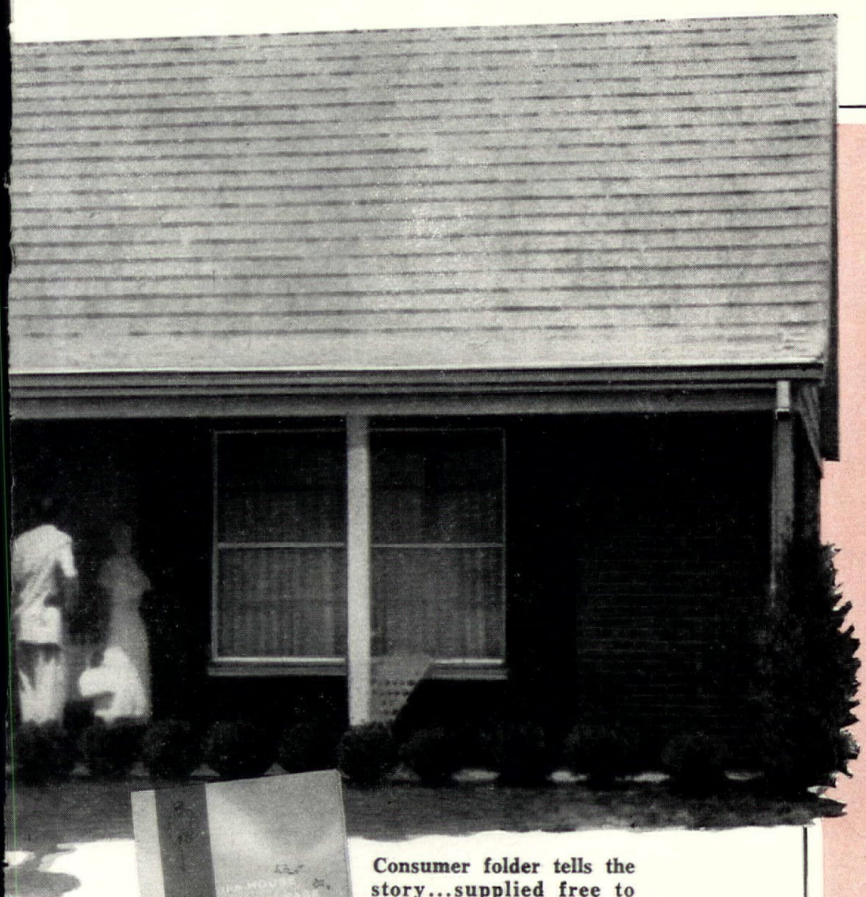
That "package" of products made of Reynolds Aluminum enhances the beauty of *any* home...whatever its design. And the practicality of a maintenance-free exterior, of all-around Reynolds-Wrapping for all-season comfort at lowest cost, further enhances the sale-ability of any type. The house *you* build can be "THE HOUSE OF EASE" ...all it needs is the Reynolds Aluminum "package".

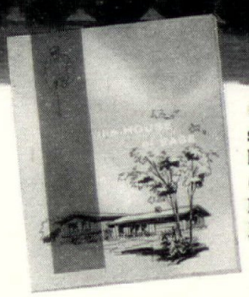
Builders of modest-priced houses and of luxury models—from coast to coast—are using "THE HOUSE OF EASE" as their central advertising and promotion theme. They're selling more leisure, less upkeep and higher re-sale values. These are the things people want... that's why they buy "THE HOUSE OF EASE".

REYNOLDS



HOUSE OF EASE"





Consumer folder tells the story...supplied free to builders using the "HOUSE OF EASE" package. Reynolds Metals Company, Richmond 18, Virginia.

Major Products in the "HOUSE OF EASE" package...made by leading manufacturers:

1. Ductwork of Reynolds Aluminum; saves up to 10% on heating and cooling.
2. Gutters and Downspouts of Reynolds Aluminum–never need painting.
3. Siding of Reynolds Aluminum, baked enamel finish, many colors. All nails aluminum, too.
4. Shingles of Reynolds Aluminum–the permanent roof, heat-reflective.
5. Flashing of Reynolds Aluminum—rust-free, non-staining, low cost.
6. Attic Vents of ever-efficient Reynolds Aluminum.
7. Windows and Screens of Reynolds Aluminum for lasting beauty and performance.
8. Thresholds, Doorknobs, all exterior and interior hardware — beautiful Reynolds Aluminum.
9. The TRIPLE PLUS* of Reynolds Aluminum Foil on famous brand batt or blanket insulation—and on wallboard, too.
10. Exterior Trim and Soffit of Reynolds Aluminum — no warping or rust streaks.
11. Sliding Glass Doors of Reynolds Aluminum — always smooth-operating.

Other items are Combination Storm Doors and Windows, Awnings, Shower Frames, Tub Enclosures, Vent Flues and Chimneys, Grilles and Registers, Shutters, Tile.

*The TRIPLE PLUS means (1) Cooler in Summer; (2) Warmer in Winter; (3) Moisture Control. It adds up to More Comfort at Least Cost! Trademark registered in U. S. Pat. Off.

Remember, you've got a Star Salesman in REYNOLDS WRAP ...greatest home demonstrator of aluminum...standard-bearer of the Reynolds name!



The Finest Products Made with Aluminum are made with REYNOLDS ALUMINUM

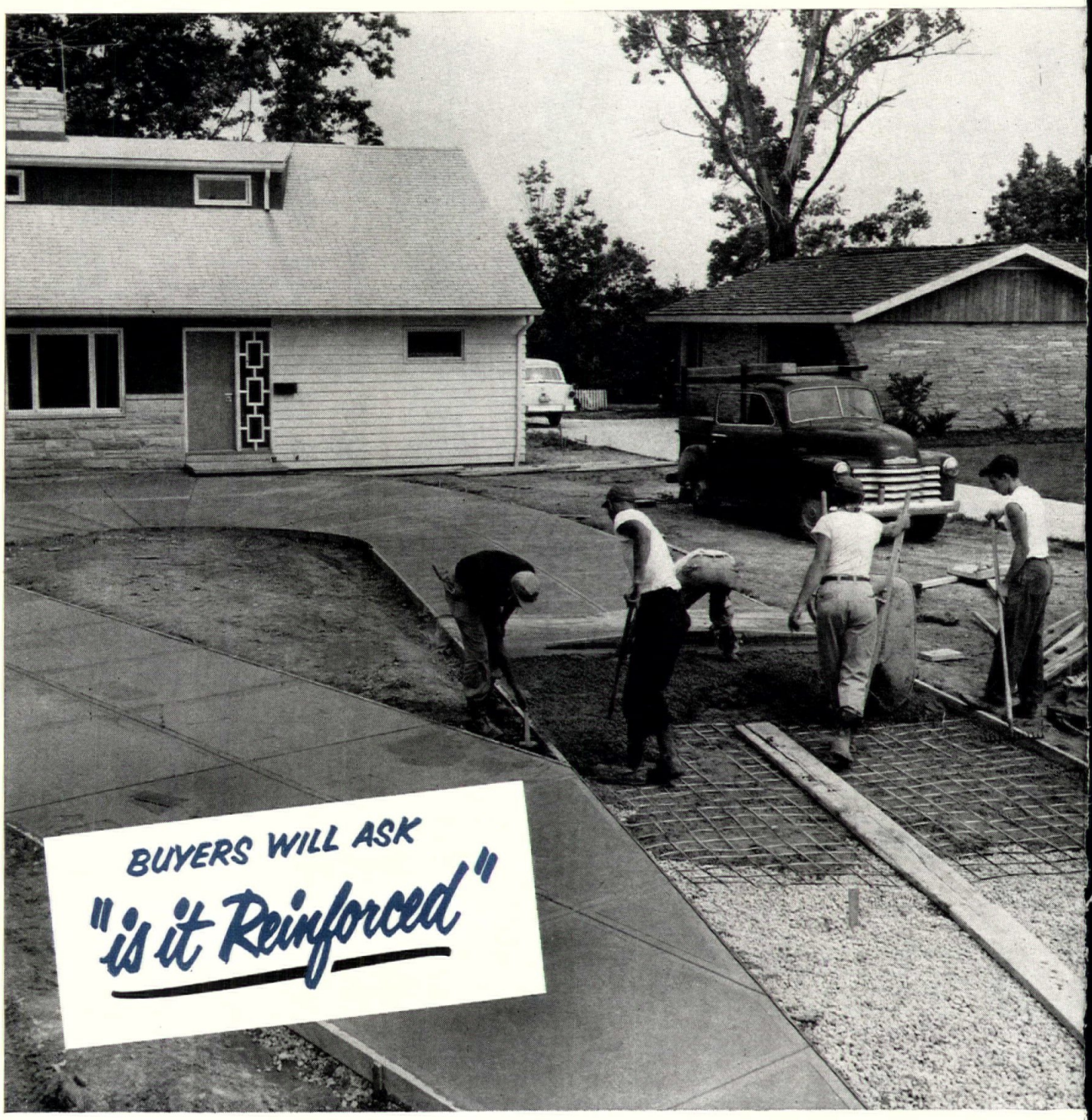
ALUMINUM

Watch Reynolds New TV Shows "Walt Disney Presents" and "All Star Golf" Every Week on ABC-TV.

To help you sell the house you

30% more strength-

...when all concrete is



build, remember:

only 10% more cost

reinforced with wire fabric!

Porches, driveways, patios, and sidewalks will benefit from the extra strength and the extra durability when reinforced with welded wire fabric. They will resist cracking . . . will stay smooth and new looking much longer . . . will add to the lasting value of homes you build.

A SALEABLE BENEFIT . . .

The higher quality that you put in a house when you use *reinforced* concrete is quality that you can sell! Consumers—home buyers—are learning about the advantages of wire fabric in advertisements in *Better Homes and Gardens* and in *Small Homes Guide*. They are learning that the 30% more strength that welded wire fabric adds to concrete actually costs them less than 10% of the cost of the concrete—only about $25 in the average house. Your buyers are willing to pay that and more to assure long-term good looks for their property. They know *reinforcement* is one extra that they cannot add themselves.

TO HELP YOU SELL

Use concrete *reinforced with wire fabric* as an extra selling feature in your homes. Send for the free merchandising aids that will help you promote this feature. See your local building materials supplier, or send the coupon.

USS and American are registered trademarks

USS American Welded Wire Fabric



FREE! Ad mats! Handouts! Brochures! Booklets! Envelope stuffers!

A COMPLETE MERCHANDISING KIT

American Steel & Wire
Rockefeller Bldg.
Cleveland 13, Ohio

*Rush me free merchandising kit to help me sell the benefits of **reinforced** concrete in my homes.*

Name .....

Firm .....

Address .....

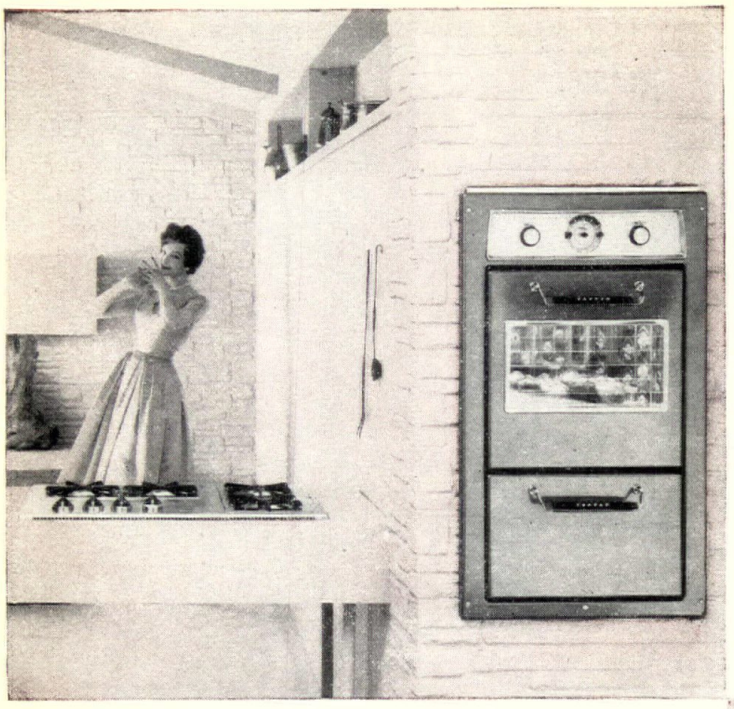
City .....

State .....

American Steel & Wire Division of United States Steel

USS

Columbia-Geneva Steel Division, San Francisco, Pacific Coast Distributors
Tennessee Coal and Iron Division, Fairfield, Ala., Southern Distributors
United States Steel Export Company, Distributors Abroad



GAS OR

Whatever your customers

TAPPAN



TAPPAN —TODAY'S BIGGEST BUILT-IN LINE —EVEN INCLUDES A BUILT-IN REFRIGERATOR!

New Tappan Refrigerator can be built-in or free standing! NOW, your customers can have a *completely* built-in Tappan kitchen—refrigerator included! Easy installation, one compact unit slips into opening. 12 and 14 cu. ft. sizes. Available in colors to match Tappan Built-In Ranges: Lusterloy, Copperloy, Pink, Yellow, Green, White.



TAPPAN SELLS KITCHENS

NOBODY ADVERTISES BUILT-INS LIKE TAPPAN!

400,000,000 sales impressions this year alone. That's why no other Built-In means as much to your customers as Tappan!

Nationally advertised in: *Reader's Digest*, *Better Homes and Gardens*, *McCall's*, *Sunset*, *American Home*, *Ladies Home Journal*, *Good Housekeeping*, *Successful Farmer*, and *Progressive Farmer*.

ELECTRIC

want in Built-Ins . . .

HAS IT!





ALL *TAPPAN* BUILT-INS —COMPLETELY INTERCHANGEABLE!

And remember, Tappan gas and electric surface units and built-in ovens are interchangeable in the same size cut-out. Only with Tappan can your kitchens be as flexible as a home buyer's mind. Only with Tappan can you interchange gas and electric units WITHOUT extra carpentry, WITHOUT refitting problems of any kind.

KITCHENS— SELL HOMES

NOBODY GIVES YOU A SERVICE GUARANTEE LIKE TAPPAN!

YOU have no service problems—No post-sale callbacks. Because Tappan has Distributors in all 48 states to back up their Service Guarantee!

Want more information on TAPPAN? Write:
THE TAPPAN COMPANY, Dept. HH-88, Mansfield, Ohio



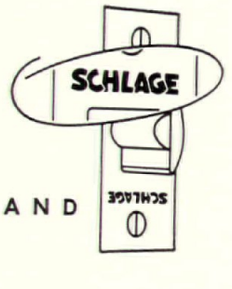
Full-page advertisements like this, in full color, are appearing in Better Homes & Gardens and other magazines. They present fine locks in an atmosphere of beauty and good taste



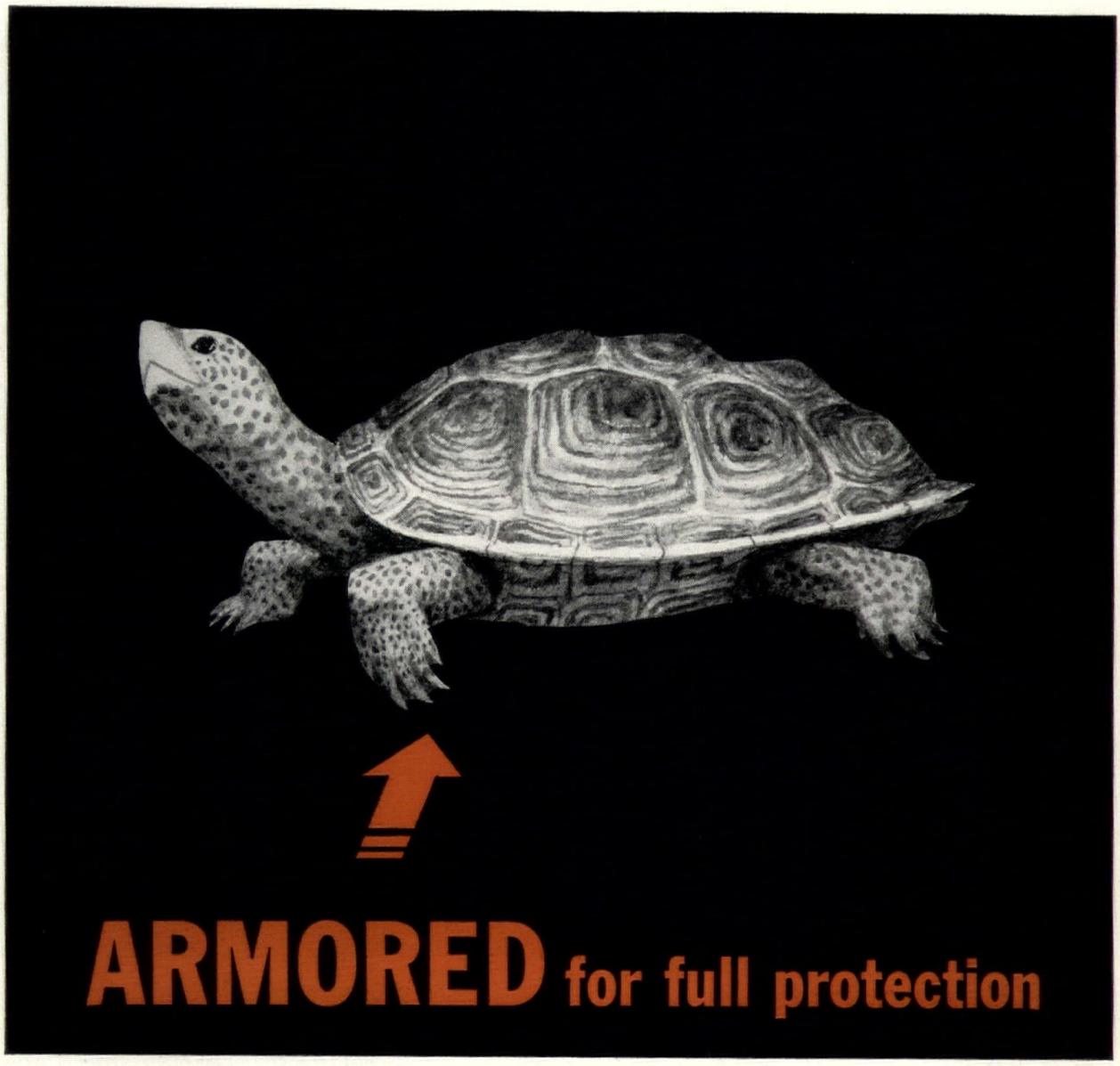
® SCHLAGE © *Advertising makes home buyers take a new look at locks*

Schlage advertising is intended to make a lock mean more than a piece of hardware. It is carefully planned to give potential buyers of your homes a new awareness of the visible and hidden values in fine locks. This new knowledge will help these buyers recognize quality building as represented by the use of fine locks.

Your Schlage representative will assist you if you wish to tie into this program to help make more sales points for your homes. Or write P.O. Box 3324, San Francisco 19. Schlage Lock Company ... San Francisco ... New York ... Vancouver, B.C.



AMERICA'S MOST DISTINGUISHED LOCK BRAND

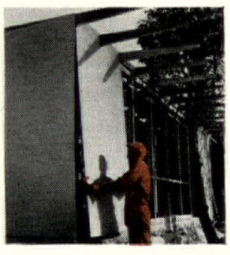


ARMORED for full protection

SIMPSON ◆ OVERLAID PLYWOOD

Protect your building profits with Simpson Overlaid Plywood, the finest siding material ever developed. Cut installation costs with easy-to-handle 4′ x 8′ sheets that go up faster, reduce cutting and waste, and need less blocking and bracing. The tough and durable overlay is unaffected by weather changes, and its smooth, grain-free surface needs no preparation before painting. Two coats will do the work of three . . . and last years longer.

Speed up your building program . . . cut installation and painting costs . . . and sell with pride . . . when you use Simpson Overlaid Plywood siding.

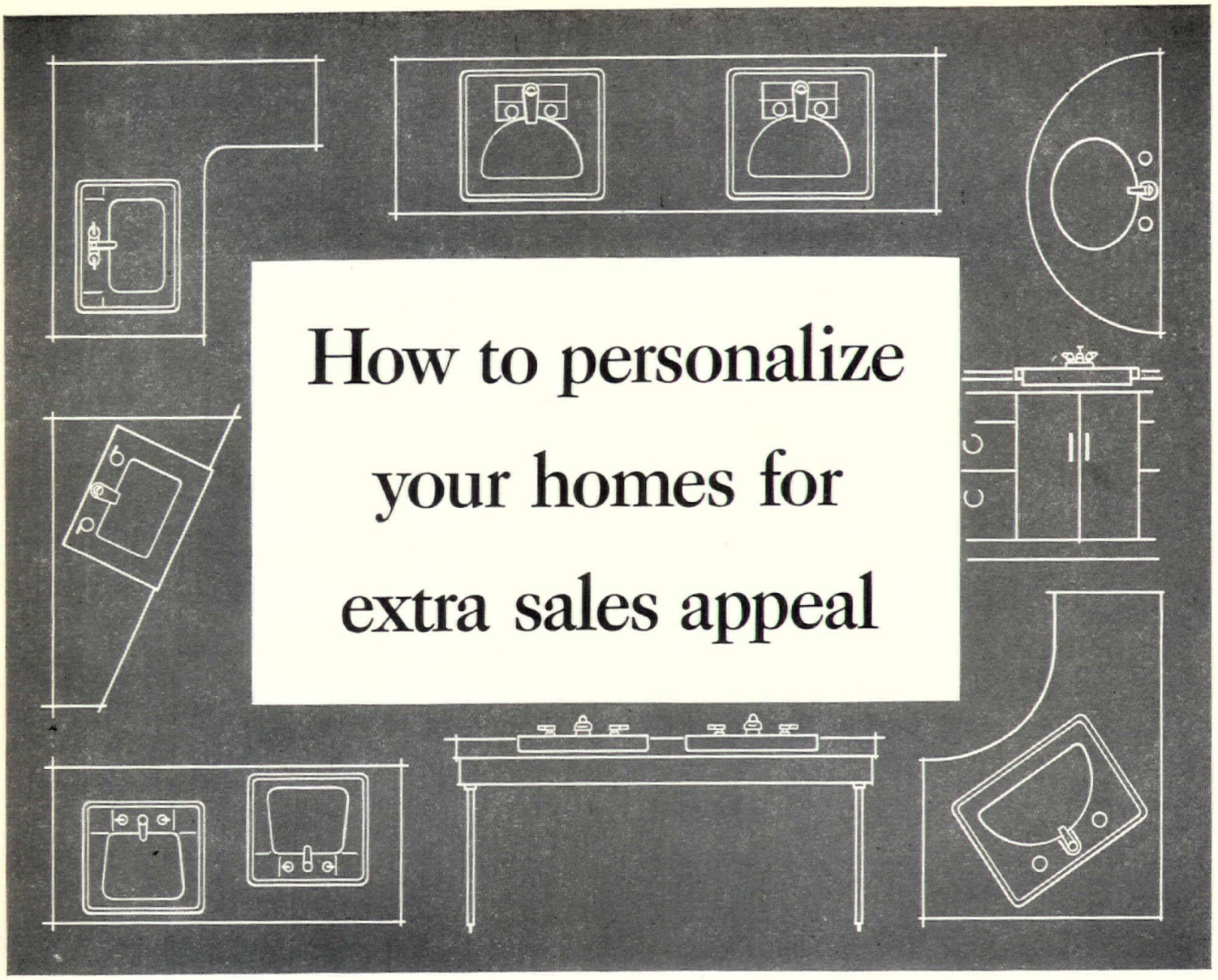


◀ *Better results . . . Faster application . . . Less cost.*

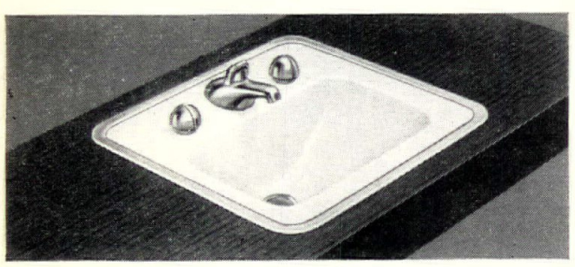
RELY ON Simpson® PLYWOOD

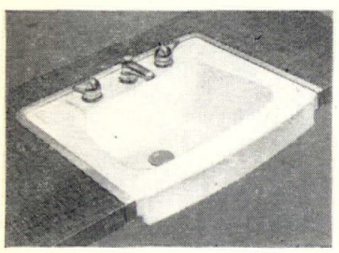
How to save 30% on installation and finishing costs, write:

Simpson Logging Company, Plywood & Door Products, 2301 N. Columbia Boulevard, Room 803-K, Portland 17, Oregon: Regional Offices in New York, Cleveland, Minneapolis, Chicago, Denver, Memphis, Dallas, Los Angeles, Seattle, and Portland.



How to personalize your homes for extra sales appeal





Luxury at a modest price. *Crane Westland (above), Crane Countess (left), gleaming vitreous china lavatories priced for smaller budgets. Both feature Crane Dialese controls and come in 7 lovely Crane colors and white.*

Crane offers the most complete line of countertop lavatories—9 designs, 7 colors to help you make every bathroom different and distinctive

There are a lot of ways you can avoid the "peas-in-a-pod" look—even if you're building project homes.

One of them is Crane countertop lavatories in the bathroom—built into L-counters, corner units, vanities with storage, or other distinctive installations like the ones shown above.

Crane offers *nine* designs . . . the most complete line of countertop lavatories in the field. 7 beautiful colors and white in vitreous china, cast iron, and porcelain-on-steel.

And every Crane countertop lavatory is styled by famous designer Henry Dreyfuss, and engineered by Crane to last longer.

Yet Crane, the preferred plumbing, doesn't cost any more. Why not call your Crane Branch or Crane Wholesaler for complete information?

CRANE CO. 836 S. Michigan Ave., Chicago 5 · VALVES · FITTINGS · PIPE · PLUMBING · KITCHENS · HEATING · AIR CONDITIONING

CRANE

THE PREFERRED PLUMBING



12" x 24" panels with flange joint stapling edge makes application easy and rapid.

RELY ON

Simpson®

Forestone®

ACOUSTICAL CEILING MATERIAL

TODAY

QUIET HOMES SELL BETTER . . .

As a builder, you know that buyers want more for their money than ever before. They want truly modern living, and that includes effective sound control.

You'll sell homes faster when you show that Forestone* ceilings absorb up to 70% of all noise striking them . . . that Forestone adds beauty to any room . . . can be painted repeatedly without appreciable loss of acoustical efficiency or appearance.

Your own crew can install Forestone easily, at about the same cost of ordinary ceilings. But insist on *genuine* Forestone. No other ceiling tile (including look-like imitations) can deliver all of Forestone's benefits.

Investigate Forestone now. Ask your local Lumber Dealer, your Simpson Certified Acoustical Contractor, or write: Simpson, 1008K, White Bldg., Seattle, Washington.

See Simpson's full line of home building materials at the NAHB National Housing Center in Washington, D. C.

AI-817

*REG. U. S. PAT. OFF.-U. S. PAT. NO. 2,791,289

Rely on Simpson for the finest in Douglas Fir, Western Hemlock, Redwood Lumber; Acoustical, Insulating and Hardboard products; Plywoods and Doors.



One of 10,000 attractive Stoneson-built homes in the San Francisco area.

BPI BITUMINOUS PIPE INSTITUTE

BERMICO SEWER PIPE

For a blue ribbon winner

BERMICO®

The modern pipe for modern living

More and more, where you find fine dwellings you find Bermico—as in this charming home designed and built by Stoneson Development Corporation of San Francisco. It won a Saturday Evening Post Blue Ribbon Award for the quality of its brand-name materials.

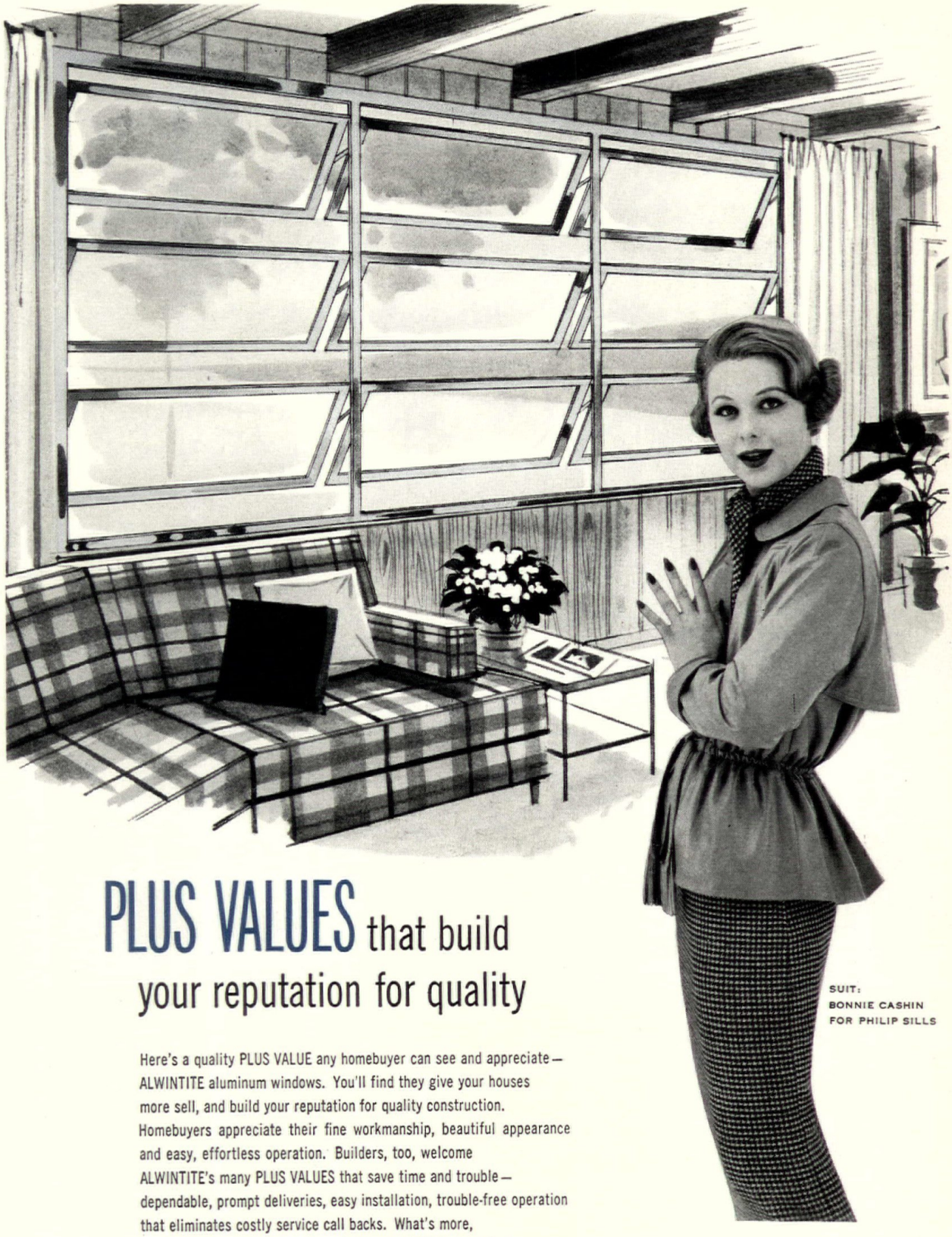
Bermico is tough cellulose fibre, thoroughly impregnated with coal tar pitch, that is naturally waterproof, root-proof and resistant to acids and alkalis. Convenient 8-foot lengths make Bermico easy to lay. Joints are quickly sealed with a few hammer taps.

For lasting service, use or specify *Bermico® Sewer Pipe* for house-to-septic tank and sewer connections, storm drains, down-spouts runoffs—*Bermiseptic® Perforated Pipe* for septic tank disposal beds—and *Bermidrain®* for foundation drainage.

Send for free copies of our 50¢ booklets—"How and Where To Install A Septic Tank System" and "What Every Homeowner Should Know About Foundation Drainage." Address Dept. KB-10.

BROWN QUALITY COMPANY

General Sales Offices: 150 Causeway St., Boston 14, Mass.
Mills: Berlin, N. H.; Corvallis, Ore.



PLUS VALUES that build your reputation for quality

Here's a quality PLUS VALUE any homebuyer can see and appreciate—ALWINTITE aluminum windows. You'll find they give your houses more sell, and build your reputation for quality construction. Homebuyers appreciate their fine workmanship, beautiful appearance and easy, effortless operation. Builders, too, welcome ALWINTITE's many PLUS VALUES that save time and trouble—dependable, prompt deliveries, easy installation, trouble-free operation that eliminates costly service call backs. What's more, General Bronze stands firmly behind every ALWINTITE product. Reliable distributors with factory-trained window specialists are at your service. For the complete story, see your local ALWINTITE distributor or write us direct.

SUIT:
BONNIE CASHIN
FOR PHILIP SILLS

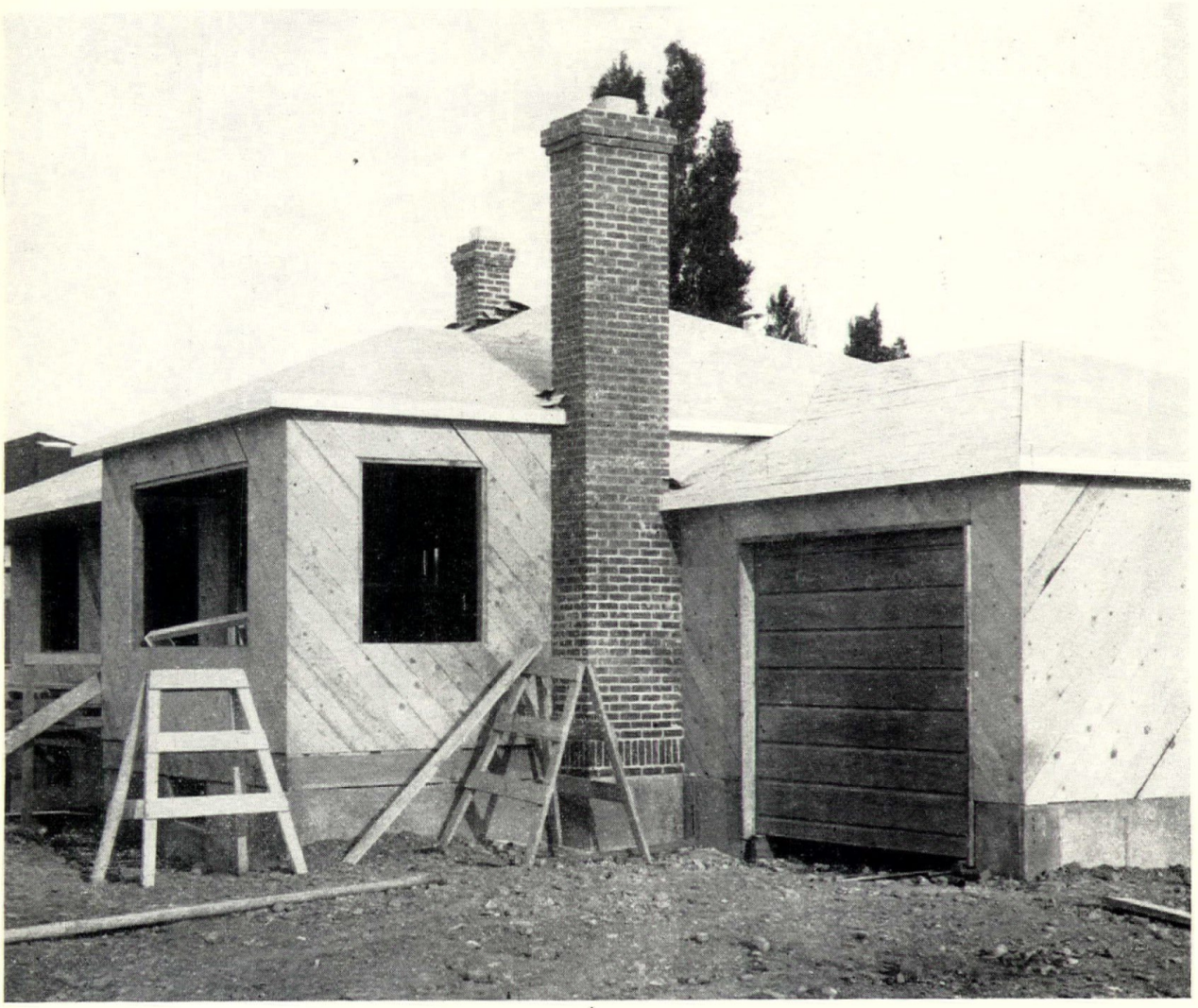
ALWINTITE
by **GENERAL BRONZE**
GARDEN CITY, N.Y.

ALUMINUM WINDOWS · SLIDING DOORS

For strong, lightweight sheathing...

consider **WHITE FIR**

stays straight and flat after placed in use



WHITE FIR makes a wise choice for sheathing. Not only does White Fir assure you a flat subsurface for siding, roofing and flooring, but it also contributes good insulating properties and adds overall structural strength to the building by providing stiffness. When you specify White Fir sheathing you are using a wood that nails easily and is light in weight to facilitate easy and economical handling on the job.

Also consider White Fir for siding, joists, rafters, stringers, studs, and *architectural woodwork, paneling* and *mouldings*. White Fir offers you one of America's most versatile softwoods. It is *carefully dried* to insure accurate sizing, improved working qualities and lower maintenance cost.



Write for FREE illustrated book about White Fir to:
WESTERN PINE ASSOCIATION,
Dept. 705-V, Yeon Building,
Portland 4, Oregon.

Western Pine Association

member mills manufacture these woods to high standards of seasoning, grading and measurement

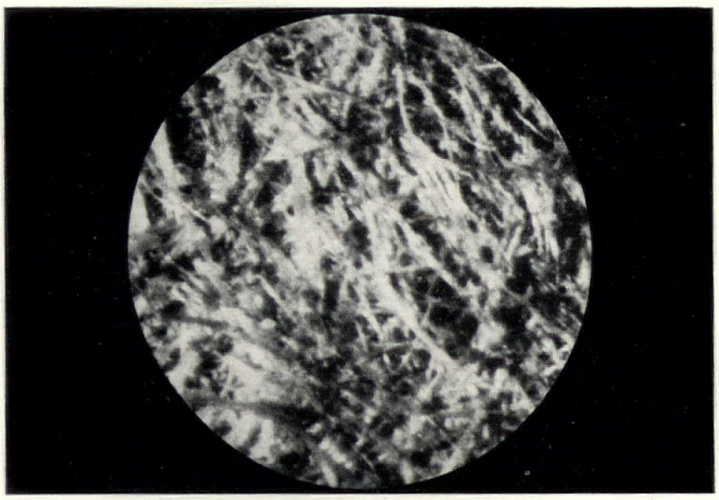
Idaho White Pine • Ponderosa Pine • Sugar Pine
White Fir • Incense Cedar • Douglas Fir • Larch
Red Cedar • Lodgepole Pine • Engelmann Spruce

Today's Western Pine Tree Farming Guarantees Lumber Tomorrow

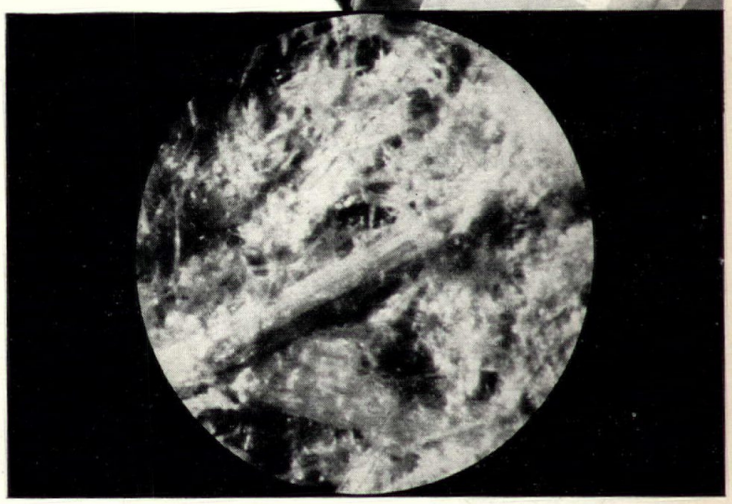
THE MICROSCOPE PROVES THE DIFFERENCE!



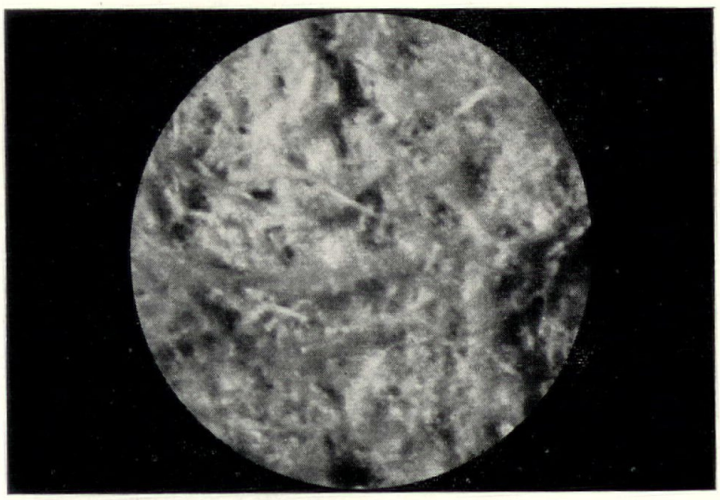
New CHEM-FI manufacturing process preserves the fiber strength of natural wood . . . makes Barrett board stronger, more uniform.



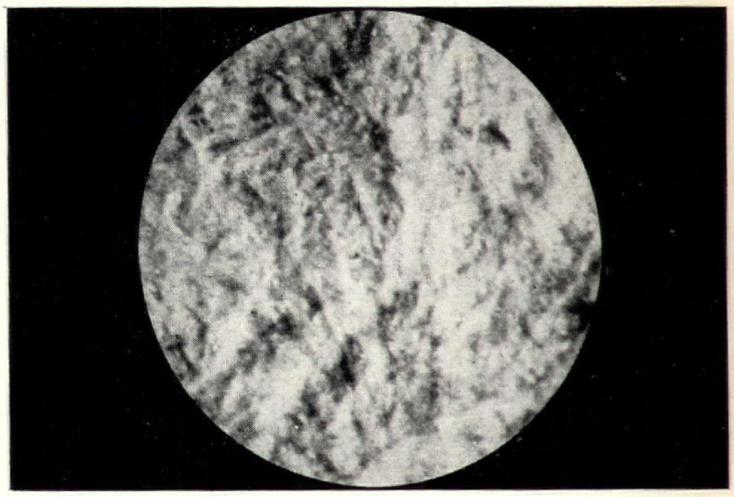
BARRETT INSULATING BOARD (magnified 20 times)
This microphotograph shows the long, interlocking wood fibers that reinforce Barrett Insulating Board . . . give it superior strength, uniformity and uniform thermal resistance. Barrett's CHEM-FI process separates the wood fibers by chemical means, retaining the strength of the natural wood from which it's made.



PROCESS B (magnified 20 times)
Notice that insulating board made by Process "B" has little uniformity in its fiber lengths. Some fibers are long, others are powder-like, providing no reinforcement. For a given board density (and thus a given K factor), Barrett's CHEM-FI manufacturing process produces insulating board of maximum strength.



PROCESS C (magnified 20 times)



PROCESS D (magnified 20 times)

Insulating Board made by these processes shows same preponderance of short fibers. Barrett Insulating Board using the CHEM-FI process, is made with longer, more uniform fibers, which have a reinforcing effect and substantially improve strength.

Builders—these microphotographs carry an important message for you!

Compare Barrett Insulating Board with those made by three other processes above. Then you'll understand why Barrett Insulating Sheathing has greater strength, more uniform insulating power than other sheathings. Barrett's new CHEM-FI manufacturing process improves sheathing strength dramatically. To you, this means less damage in transit . . . less breakage on the job . . . firmer gripping of nails . . . greater wall rigidity . . . increased resistance to stress. Ask your building supply dealer to stock Barrett Insulating Sheathing and Insulating Shingle Backer. Or write directly to us for full information.

Allied Chemical

BARRETT DIVISION
40 Rector Street, New York 6, N. Y.



presenting . . .

a rugged sectional at a right price!

Here's the Berry four-section door—the newest, most advanced sectional a garage can boast. Best yet, it's priced to outsell any previous sectional door.

But don't be deceived by its highly competitive price. This sectional has all the buyer-preference features that have made Berry the *world's largest manufacturer of residential garage doors:* easy-lift, quiet operation; tapered track and adjustable rollers; complete, climate-proof weather stripping; metal stops; full-width unlatching mechanism; rigidized face panels and continuous section hinges. It's Paintlok steel, too . . . won't swell, warp, peel, check or rust. The door is fully backed by an exclusive five-year guarantee!

See your building supply distributor or write direct. *Steel Door Corporation, 2400 E. Lincoln, Birmingham, Michigan.* In Canada: Berry Door Co., Ltd., Wingham, Ontario.

Berry
STEEL DOORS



MAKE EXTRA MONEY WITH EVERY SQUEEZE

Speed your work with the Bostitch T-5 Tacker

POWERFUL—a rugged spring drives the staple securely into the work.

FAST—one hand, one squeeze and the staple's *in*. One hand's free to position the work.

VERSATILE—choose from three spring tensions. Six types of Bostitch staples for ceiling tile alone . . . 15 types and sizes for *all* tacking jobs.

CONVENIENT—for tight places. Works fine where you can't swing a hammer.

ACCURATE—drives the staple precisely where you want it—within 1/16th" of an obstruction.

FLEXIBLE—does scores of fastening jobs better and faster than conventional methods. Installs ceiling tile, insulation, screening, low-voltage wiring, metal lath, Cornerite, to name only a few.

SO WELL MADE WE SERVICE IT FREE

See and try the Bostitch T-5 Tacker at your Building Supply Dealer's

Put a T-5 in your tool chest. Reach for it where you now reach for hammer and tacks. The time you save is profit in your pocket.

Fasten it better and faster with

BOSTITCH®
STAPLERS AND STAPLES

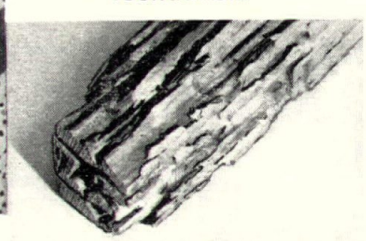
530 Briggs Drive, East Greenwich, R. I.

NEW!





Now! This kind of termite damage can be prevented with **TERMIBAR** installed under foundation.



A TERMITE KILLER & VAPOR BARRIER IN ONE EASY-TO-LAY PRODUCT

AMAZING NEW BIRD TERMIBAR* TERMITE KILLER

Rugged Polyethylene film laminated to membrane saturated with lethal Dieldrin. Protects your houses from termites and moisture.

- stops and kills termites; prevents costly damage.
- seals out moisture; prevents rot; exceeds FHA minimum requirements for vapor barrier under slab and in crawl space.
- stops and kills ants; prevents harmful infestations.
- saves labor costs; costs less per sq. ft. than any other combination of termite preventative measures.
- gives new homes a powerful "hidden value" selling point.
- available in rolls of 550 sq. ft., 6 ft. wide by 91⅔ ft. long.
- ideal for slab construction, under the basements of new homes in damp, high-termite areas and in the crawl spaces of homes already built.



*TM

SEND FOR FREE BOOKLET
giving details and instructions for use.

BIRD
TERMIBAR*
Termite killer and vapor barrier

BIRD & SON, INC.,
Dept. HH-10, E. Walpole, Mass.

Please send me Bird Termibar literature.

I am ☐ Architect ☐ Builder ☐ Dealer ☐ Other_____

NAME_____

ADDRESS_____

BIRD & SON, INC.
E. WALPOLE, MASS.; CHICAGO, ILL.;
CHARLESTON, S. C.; SHREVEPORT, LA.

BIRD & SON, INC. Established 1795

ELIMINATE THESE FIVE STEPS



Clean up — brush sand



apply first coat



brush sand



apply second coat



brush sand



GLOSSY AS A CAT'S BACK
AFTER A SINGLE COAT OF WAX



GIBRALTAR FLUSH DOORS SAVE AT LEAST 75% OF FINISHING COSTS!

They are shipped from the factory Surface-Sealed and Satin Smooth.
Whatever finishing is done is optional — depending on the degree of brilliance desired. The Beauty is Built-in.
Most builders just wax; others use 1 coat of paint or varnish.
Nobody does any sanding.
Everybody saves at least 75% of finishing costs.

SSS
SUPER SATIN-SURFACE*

Gibraltar FLUSH DOORS

GENERAL PLYWOOD CORPORATION, 3131 W. Market Street, Louisville, Kentucky

*"Super Satin Surface" and "Triple S" or "SSS" are trademarks owned by GPC (General Plywood Corporation) and used by GPC and Licensees on products having a Super sealed or Super Micro-sealed surface that satisfies the quality standards established by GPC."

NEW TOPLITE "TWO-BY-TWO"...

first low-cost, sun-controlling glass roof panel



This is Toplite "Two-by-Two." Factory prefabricated and individually packaged for easy on-the-job installation. Sits flat on roof; no costly curb required. Overall height is only 3".

In this handsome living room, Toplite "Two-by-Two" brings cool, diffused, glare-free daylight in through the roof. You'll find countless uses for this new, low-cost skylight in *your* homes!

Looking for that "different" touch that can lift your homes out of the ordinary and into the "best seller" class? Toplite "Two-by-Two"—the first low-cost, sun-controlling glass roof panel designed for homes—may be your answer.

With Toplite "Two-by-Two," your dream floor plans can become an exciting reality. . . . Interior kitchens, baths, hallways, utility rooms—always a daylighting problem—can now be flooded with natural, cheerful daylight—and at extremely low cost.

Toplite's excellent insulation qualities reduce heat loss in winter . . . annoying condensation is virtually eliminated. During hot summer months, Toplite "Two-by-Two's" built-in prisms reflect solar heat, help keep your homes comfortably cool.

Prefabricated, individually packaged Toplite "Two-by-Two" panels are easy to handle, easy to install. Fit flat on the roof; no costly curb needed.

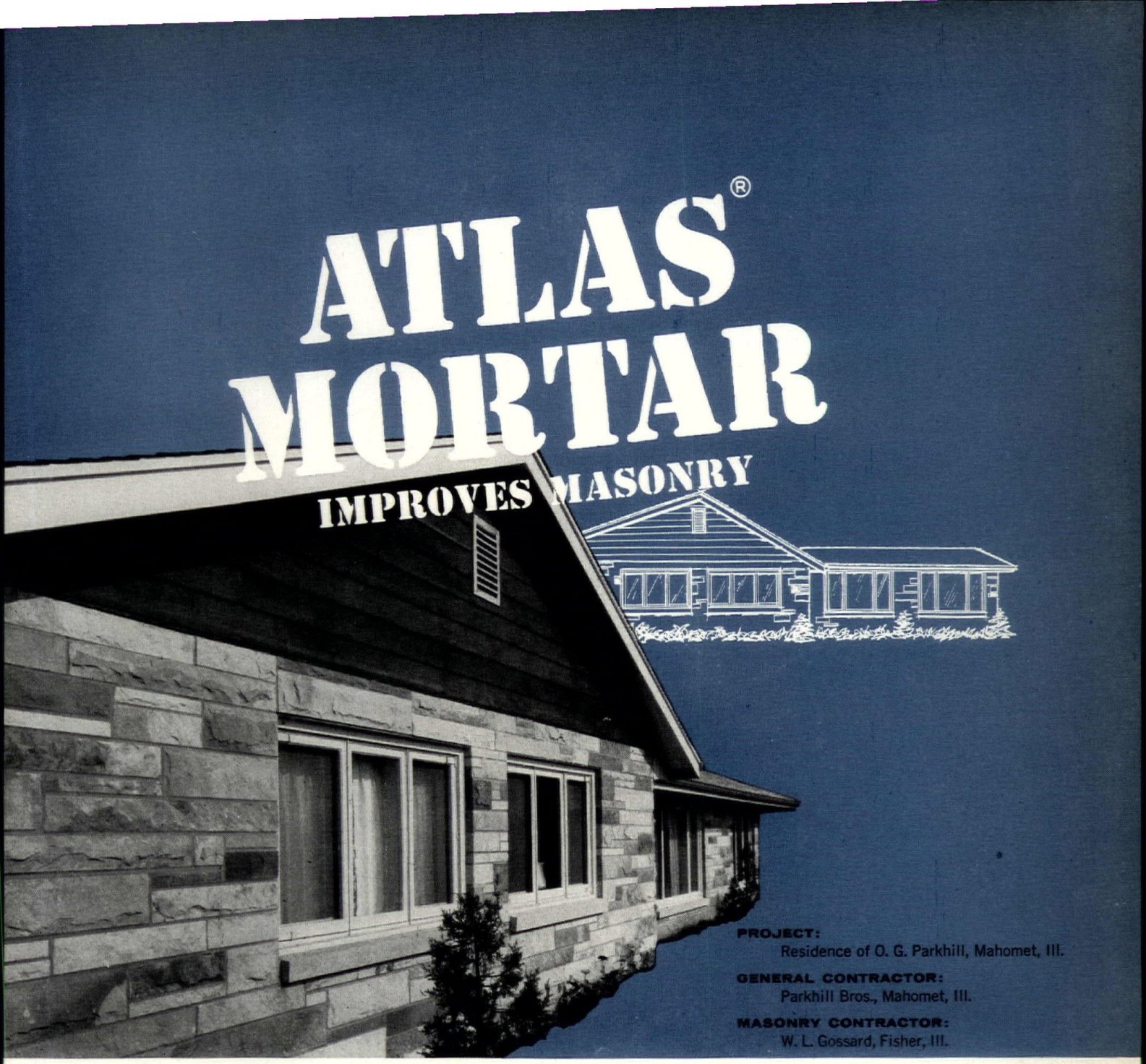
Call your dealer for complete details on new Toplite "Two-by-Two" Roof Panels. Or write Kimble Glass Company, subsidiary of Owens-Illinois, Dept. HH-10, Toledo 1, Ohio.

TOPLITE ROOF PANELS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

ATLAS® MORTAR

IMPROVES MASONRY



PROJECT:
Residence of O. G. Parkhill, Mahomet, Ill.

GENERAL CONTRACTOR:
Parkhill Bros., Mahomet, Ill.

MASONRY CONTRACTOR:
W. L. Gossard, Fisher, Ill.

"... has all the qualities desired for good workmanship."

Says W. L. Gossard, Masonry Contractor

- Builders report the excellent workability characteristics of ATLAS MORTAR cement help keep costs down in masonry construction.
- ATLAS MORTAR mixes are plastic, require less retempering, stay workable.
- Quality-controlled manufacture of ATLAS MORTAR masonry cement maintains high product standards, assuring uniform performance and appearance on every project. *(Complies with ASTM and Federal Specifications.)*

Write for your copy of "Build Better Masonry."
Universal Atlas, 100 Park Avenue, New York 17, N. Y.

UNIVERSAL ATLAS CEMENTS

Universal Atlas Cement Company

Subsidiary of **United States Steel**

USS TRADE MARK

OFFICES: *Albany · Birmingham · Boston · Chicago · Dayton · Kansas City · Milwaukee · Minneapolis · New York · Philadelphia · Pittsburgh · St. Louis · Waco*



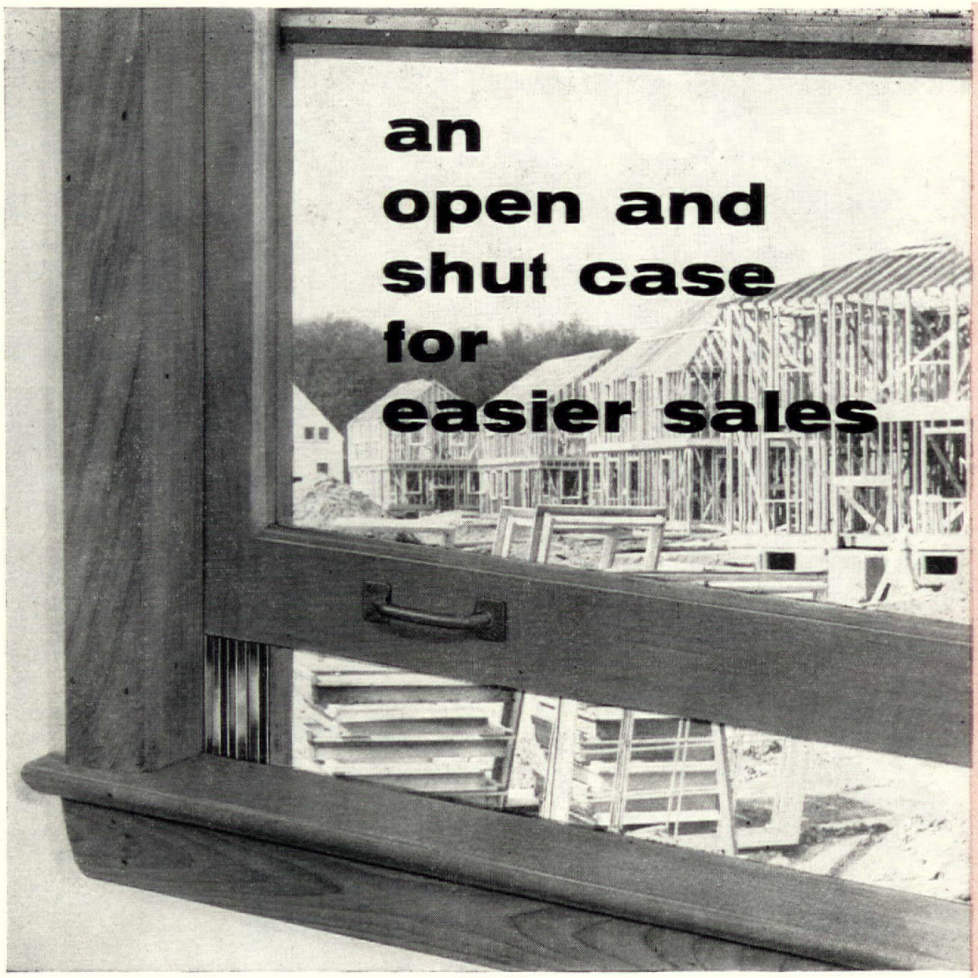


CRA

CALIFORNIA REDWOOD ASSOCIATION
576 Sacramento Street, San Francisco 11

New wrinkle in ceilings

To achieve intriguing effects like this—structurally sound, acoustically ideal, aesthetically pleasing—the architect relies on versatile California redwood. And to assure uniform quality and top performance, he relies on Certified Kiln Dried Redwood, manufactured to exacting standards by the member mills of the California Redwood Association and identified by the trademark CRA.

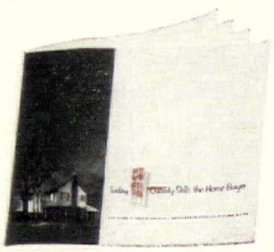


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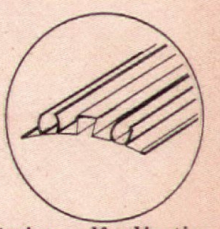
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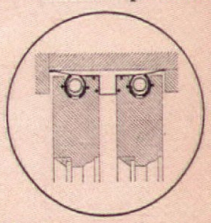
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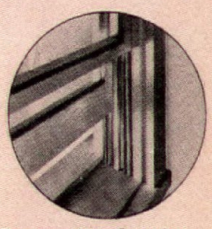
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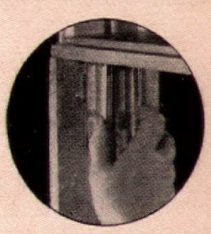
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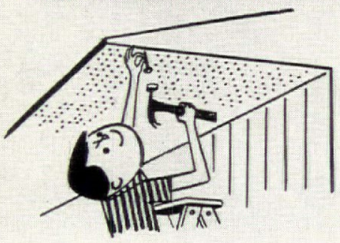
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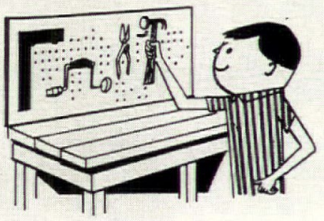


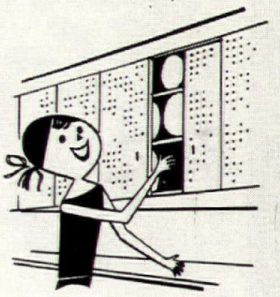
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Roundup

This Month's News

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More help from the manufacturers

Can manufacturers help builders create a better market for quality homes? Top management of a score of the big building materials producers—with encouragement from Time Inc management—met three times this summer to study how their big resources can best be marshalled to put a firmer foundation under the improving market for new homes. The key to a strong and sustained market, they agreed, is *quality*. And quality homes can be sold in quantity only if 1) the American public is sold on putting a higher percentage of income into its homes; 2) if the public is made to realize how much better homes are built today than "in the good old days"; 3) if appraisers and lenders give quality housing the additional consideration it deserves; 4) if trade-in financing is greatly facilitated. NAHB President Nels Severin played the leading part at the manufacturers' first meeting to tell them what the builders have been up against and where the producers could help; Past President Dick Hughes played a leading part at the second meeting to discuss how advertising could be used to sell more new houses and urge the manufacturers to take part in the San Antonio marketing conference.

Editor Perry Prentice of HOUSE & HOME told one session: "Home building is the only major industry where the principal manufacturers and the principal bankers have up to now let their customers, the builders, carry the burden of leadership almost unaided. If manufacturers and lenders would assume a leadership role, *acting in concert with the home builders,* a firm foundation could be laid for a much bigger and better home building industry."

Is home building back to its mid-50s 'normal'?

Don't look for any further sharp upswing in the pace of home building. Housing is up substantially—but not dramatically—since passage of the anti-recession housing law in April. But most experts don't look for much more climb.

Recovery so far is impressive enough, when you look at the statistics. Private starts for the first eight months are 6.1% ahead of 1957. Still better, the seasonally adjusted annual rate of private starts for June, July and August was the best since 1955, one of housing's peak years. In the four months since May, private starts have maintained a level better than five of the last seven years (exceptions: 1954 and 1955).

Housing's steady rather than explosive recovery typifies what the whole US economy is doing this time. In 1955, recovery took off in three sharp stages: cars, houses and plant & equipment. This time, say economists, this isn't in sight. What does seem to lie ahead is steady progress.

Fanny May runs out of money for cheap house program

Fanny May did the expectable in mid-September: it cut off all applications under special assistance program No. 10 for FHA-VA houses of $13,500 and under. (The action came after other pages in this issue had gone to press, see p 39.) Fanny May officials say purchases, commitments issued and applications on hand Sept 16 more than exceed the $1 billion in purchasing authority for this anti-recession program. There is $688 million more in Fanny May special assistance purchasing authority (some still withheld by the Budget Bureau) that is not earmarked for any particular program. The President could make it available under program No. 10, according to FNMA. But no one expects the President to do so. He soundly denounced the plan when Congress set it up last April.

Court bans carpenter boycott of nonunion windows

The Natl Labor Relations Board is moving doggedly against illegal secondary boycotts by union carpenters. Latest step involves three locals and the international union in southern Illinois. The unions had stopped their members from working on prefab homes built by Midwest Homes Inc of Mattoon, Ill, because the houses used Anderson Windowalls, made with nonunion labor. On complaint of Midwest Homes NLRB got a federal court injunction in east St Louis banning the boycott. Next step: NLRB will hear evidence, then (presumably) issue a cease and desist order. It issued such an order in a nearly identical case in Chicago earlier this year, also involving Anderson windows (March, News).

NEWS continued on p 38

continued from p 37

MORTGAGE MARKET:

Looming: a new interest rate pinch on VA

Only Congress can save VA from a big drop in volume, VA loan chief concedes.

Alternatives: boost VA's rate or pump more money into FNMA

VA's frozen interest rate seems about to choke off construction of VA homes again .

Six months ago, Congress gave the sagging VA program new life by boosting its mortgage interest rate from 4½ to 4¾% and pumping $1 billion of Treasury money into VA financing through Fanny May special assistance loans—at par—for houses priced under $13,500. Since then, VA applications have soared 78% from their year-earlier levels. In the last three months, VA has accounted for 10% of housing starts.

Now, rising interest rates—as they have so often before—are making VA loans unattractive to lenders except at discounts so big most builders are little interested. On top of that, Fanny May officials said at mid-month, their $1 billion for mortgages on low priced homes would be gone by October 1. Fanny May money has been the key to VA's comeback.

Will VA's impending eclipse throttle back home building's pace just as it starts to recover from a two-year slide? Not right away. Existing mortgage commitments will keep home builders busy for several months. By that time, mortgage conditions could change again—and some experts think they will. But for the moment, the rising price of money casts a shadow over next year's housing volume.

Discounts on VA mortgages have gone up one to three points in the South and West where VA building has been greatest. In Houston, T J Bettes will quote only the Fanny May secondary market price of 92½ to builders who want to continue VA programs. As Fanny May becomes the major source of VA loans, even this price will be cut, Bettes expects.

VA Loan Guaranty Chief Phil Brownstein regretfully concedes the GI program may again be heading for slow death. His only hope for a reprieve is that Congress will act fast in January to save VA by giving Fanny May more money for special assistance loans or by boosting VA's maximum interest rate. Without such action—or another turnabout in the money market—VA will have to fire many employes it has just hired to handle its big summer processing load, Brownstein concedes.

The surge in FHA and VA discounts in late August and early September was nearly as sudden and dramatic as the drop in discounts last January.

In 13 of the 16 cities checked monthly by HOUSE & HOME, mortgage men reported bigger discounts. The increases ranged from one-half to three points. Even in New York, where the par market for FHA and VA house mortgages held up, discounts on 4½% Sec 207 and 213 multi-family mortgages shot up two points. New price: 96-97, with few takers.

In several cities the dip in futures' prices was even greater. In Detroit, Oklahoma City, San Francisco, Newark and Atlanta, the lowest conventional interest rate jumped ¼%.

In some cities, market prices for FHA and VA loans were changing so fast at mid-month that mortgage bankers were unable to base their offers to builders on sure knowledge of what lenders would pay. Says Raymond Lapin, president of Bankers Mortgage Co of San Francisco: "We are giving prices to builders on what we think the market is." Agrees David Northridge, vice president of the Colwell Co in Los Angeles: "We really don't know what the prices are. All we know is that they're going down."

Big reason for uncertainty was the large scale withdrawal of eastern mutual savings banks from the market, waiting to see how far the price of government bonds would drop. Says George Dickerson of Stockton, Whatley, Davin & Co of Jacksonville: "No one will give us a quotation. Everyone is hedging. They won't even give us a yield pattern."

Other signs of the tightening: one major group of institutional lenders in the East withdrew from the market entirely. A major insurance company which had been buying FHAs heavily told its correspondents it wants only 10%-down loans —a requirement which is sure to cut its purchases 90%.

How far will the market drop before it levels off?

Most expert forecasts are hedged with ifs and buts. Robert M Morgan, vice president of the Boston Five Cents Savings Bank, says: "I think prices will be all right as soon as they get better lined up with the bond market."

But the bond market was still slipping in mid-September. The key issue of Dec 1967-72 2½s which mortgage men use as a barometer was down to 89.12 from the August high of 92.26.

Another unknown: what more will the Federal Reserve Board do, if anything, to tighten up money. Its first action, okaying a ¼% boost to 2% in the rediscount rate for some reserve banks, shows the Fed is ready to shoot first and ask questions afterward in its fight against inflation.

Donald McGregor, executive vice president of T J Bettes in Houston, is pessimistic, says: "We could get back to the point where we'll be dealing entirely with Fanny May again by the end of the year." But B B Bass, Oklahoma City mortgage banker, believes: "The sudden shift of the market makes things look worse than they really are."

Some mortgage bankers agree with Los Angeles' David Northridge that discounts will shrink again after the first of the year. In that belief Los Angeles builders are taking standbys to get them started on new projects uncommitted when the tightening came. Price on standbys: about 2 points below the current market.

Fanny May commits last of $1 billion anti-recession fund for cheap houses

Fanny May's controversial $1 billion special assistance program No. 10 for houses of $13,500 or less is all over. The money, it seemed certain at mid-month, would be gone by October.

The program, part of the anti-recession Housing Act which became law April 1, is regarded by many a builder as the spark that re-ignited house building. President Eisenhower, on the other hand, denounced it as "wholly inconsistent . . . with philosophy of the free enterprise system that has made this nation strong" and complained that it "provides in effect for substituting $1 billion of federal financing for financing by private investors."

Here was the situation as Program No. 10 reached the end of its six-month life:

By Sept 5 Fanny May had issued commitments for 71,155 mortgages, valued at $856,609,000. But 6,629 pending applications for $80 million more in commitments meant only $63,391,000 was unapplied for. At the continuing rate of $30 million a week in applications, the money would soon be gone. Fanny May was expected to cut off all applications late in September or early October.

Still 80,000 to go

Would this end the boom in lower priced homes? Not for another six months at least. Fanny May had picked up only 286 of the mortgages it had committed to buy. So builders still had nearly 80,000 to go.

Mortgage bankers in the South and West told HOUSE & HOME that builders aiming at the $13,500 price limit had stocked up heavily with commitments—most of them before Aug 7 when the legislative requirement for par purchase of special assistance paper expired.

Actually, Fanny May did not cut special assistance prices until Aug 28. The main (but not admitted) reason: the Administration did not want to put more pressure behind Democratic housing bills it opposed by cutting prices while Congress was still in session (Sept, News).

The price cuts still leave Fanny May special assistance prices well above both the free market and its own secondary market prices. The new schedule: 97½ for 4¾% mortgages; 98½ for 5% mortgages and 99½ for 5¼% mortgages.

After the ¾ point purchase and marketing fee and ¾ point commitment fee are subtracted, the net to the builder figures out to 96 for VAs and 98 for FHA 203 (b)s.

A senator as a prophet

At his home in Huntsville, Ala, Sen John Sparkman, chairman of the Senate housing subcommittee, promptly issued a mimeographed statement predicting: "The administration's action in voiding par purchase could have the effect of completely shutting off or greatly impairing this worthwhile program." The senator was wrong. It made hardly any difference at all.

Applications continued to pile in at a $30 million a week rate, a good sign that builders were more concerned with getting commitments before the money was gone than they were with paying discounts.

With special assistance program 10 out of money and free market discounts rising, renewed interest in Fanny May's secondary market program is inevitable.

Since money began easing last spring, Fanny May's secondary market purchases have slid to almost nothing (210 mortgages in the first week in September) while its sales out of portfolio boomed. A reversal of this trend now looms.

American Legion urges flexible VA interest

Flexible VA interest rates have been endorsed again by the American Legion, by far the largest (2.8 million members) of the nation's organized veterans groups.

The Legion wants Congress to give VA the same latitude FHA now has to raise and lower its interest rate as the price of money for loans fluctuates. This would mean authority for VA to boost interest as high as 6%.

The policy, first adopted by the Legion last year and reiterated at its Chicago convention last month, is a major break from tradition for veterans groups, which have leaned on Congress to keep interest rates low and hand out direct government loans in areas where yield-conscious private lenders will not venture.

New York S&L men slap HLBB, ask adoption of central bank system

A much stronger and more active Home Loan Bank system—performing as a true central bank—has been proposed by the Savings Assn League of New York.

This is the key point in the league's program to revitalize the system. It is the third major reorganization plan published. Others were proposed two years ago by the US Savings & Loan League and by the Natl League of Insured Savings Assns.

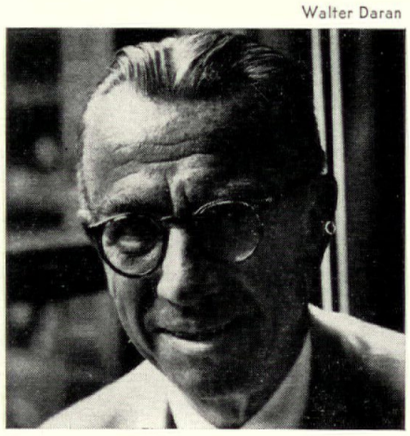
The New York plan was drafted by a 16-member committee headed by George L Bliss, president of the Century S&L of New York City. Over a span of two years, it interviewed S&L leaders, HLBB members and national economic and fiscal experts.

Of the three plans, the New York proposal is the most far-reaching and therefore likely to be the most controversial. It also takes some whacks at the HLBB itself.

All three plans ask that the regional home loan banks make long-term as well as short-term advances up to 10 years. (Only four of the 11 regional banks now make 10-year advances.) But the New York League's study committee goes further:

"A line of credit should be provided for each member . . . It is inappropriate for the banks to control the purpose for which an advance is made, either by an interest rate differential or by approving advances for one purpose and denying them for another."

Walter Daran



CHAIRMAN BLISS

For the HLBB: a scolding

This proposal is in line with what Federal Reserve Banks now do for member banks. For S&Ls, the Bliss committee suggests advances from sale of consolidated system obligations. The committee notes that all of the persons it consulted except HLBB members felt the board could raise any amount of funds system members wanted, if the obligations were priced to meet the money market.

The New York plan departs sharply from the plans of the two national S&L leagues on how much of their assets S&Ls should tie up in cash and government bonds. Both the Natl and US Leagues proposed higher liquidity ratios for members*. The New York proposal says: ". . . It is more important for the [regional] banks to place emphasis on the ratio of loss reserves . . . than upon the degree of their liquidity . . . It is completely anomalous to hold, on the one hand, that a major purpose of the system is to provide an assurance of credit for emergency or liquidity needs and then to require the members to provide their own liquidity by one formula or another—since if they do the latter, they will have no need for the former."

The Bliss report urges S&Ls to seek a new law setting up a secondary marketing corporation under the HLBB. It would channel mortgage funds from money-surplus to money-shy areas by buying mortgages in tight money areas and reselling them in surplus money areas.

In effect, the corporation would perform the same function for conventional mortgages held by S&Ls that Fanny May now performs for FHA and VA mortgages, issuing obligations to get its capital.

The report scolds HLBB itself for not speaking out in Administration councils on monetary, fiscal and credit matters. "The board has both a moral and an economic responsibility to make its voice heard . . . as the authority on the manner in which privately-owned local thrift and home financing institutions fit into the economy . . ."

*HLBB can now set a liquidity minimum of 4 to 8% of savings capital for federally-insured S&Ls. Current minimum: 6%. But liquidity of all federal S&Ls averages now 12.7%—more than twice the minimum required.

NEWS continued on p 41

New Luxury Air Conditioned Co-operative to Feature Kelvinator Appliances...



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Glamorous Kelvinator Kitchens Mean Modern Living

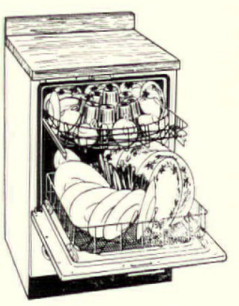
As builder John A. Severino's above letter will tell you, here's an all-electric Kelvinator kitchen that's modern to the nth degree. Superbly designed for the delight of the homemaker, it features Kelvinator's fabulous FOODARAMA, with its huge refrigerator and upright home freezer in one beautiful, compact cabinet. Other extra-attractive, extra-convenient Kelvinator appliances are the built-in dishwasher, double ovens, electric cooking top, and room air conditioners.



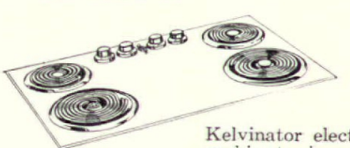
Fabulous FOODARAMA by Kelvinator, the foodkeeper of foodkeepers!



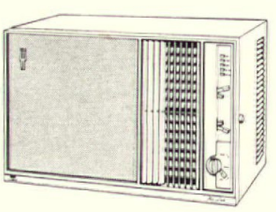
Kelvinator built-in double ovens provide baking, broiling, roasting at the most comfortable work level.



Kelvinator Electric Dishwasher ends forever this day-in and day-out nuisance.



Kelvinator electric cooking top is a wonder to work with!



Kelvinator Room Air Conditioner with Two-Directional Cooling is smartly-styled.

Kelvinator

Division of American Motors Corp., Detroit 32, Michigan

continued from p 39

California rejects NY bank direct servicing plan

Plans of Greenwich Mutual Savings Bank of New York to service its own FHA and VA mortgages in California have been stymied—at least for a while.

State Bank Superintendent William Burkett has refused to give the bank authority to set up a servicing agency in the state. He has ruled that only local firms have the right to do local servicing.

The decision was a welcome one to California mortgage bankers. They regard direct servicing as a major threat to the entire concept of the mortgage banking business since servicing—not mortgage origination—is the solid core of income.

Greenwich officials and their attorneys expressed surprise at Burkett's action. They had assumed granting of the license was a routine matter. Vice President Walter Aberg refused comment but his California attorneys indicated they will not reapply, at least while Burkett is still superintendent. It's likely Burkett will not be bank superintendent much longer. He is a gubernatorial appointee, will probably be replaced when a new governor takes office in January, whichever candidate wins in November.

Under California law the bank superintendent has almost unlimited discretionary powers in cases like that of the Greenwich bank.

The Greenwich bank didn't wait for a favorable ruling to begin switching its servicing. Apparently angered by Burkett's comment that he had consulted some leading mortgage bankers (otherwise not identified), the bank cancelled its contract with its largest California servicer: The Colwell Co in Los Angeles, an MBA member. Colwell had been servicing about $25 million of Greenwich's $100 million California portfolio. (Ironically President Bundy Colwell says he was never consulted by Burkett, nor did he ever make a voluntary protest, nor has he found a Los Angeles mortgage banker who did.)

All of the mortgages were ordered turned over to the Wilshire Mortgage Co, a non-MBA firm. Greenwich had to pay the equivalent of one year's servicing as a penalty for canceling with Colwell (½% on the declining balance).

Budget cut forces VHMCP to close eight offices

The Voluntary Home Mortgage Credit Program faces the paradox of having more money to lend than loan requests, despite tightening money.

Lenders blame this on Congress, which in April cut VHMCP off from its main source of applications by ending prior referral of applications for VA direct loans. Instead of relying on private financing, Congress voted $150 million for government VA loans.

With its business off, VHMCP has also been hit by a big cutback in staff. HHFAdministrator Albert M Cole, forced to economize because Congress slashed his budget, reduced VHMCP's annual budget from $425,000 to $240,000.

This has forced closing of offices in New York, New Orleans, Nashville, Cleveland, Salt Lake City, Kansas City, Charlotte N C, and Portland, Ore. This leaves only five offices: Washington, Chicago, Dallas, Atlanta and San Francisco.

NEWS continued on p 43

MORTGAGE MARKET QUOTATIONS

(Sale by originating mortgagee, who retains servicing.) As reported to HOUSE & HOME *the week ending Sept 5.*

FHA 5¼s (Sec 203) (b) — **VA 4¾s**

FNMA prices Spec Asst VA wz	Scdry Mkt xy	Minimum Down* 30-year Immed	Fut	Minimum Down* 20-25 year Immed	Fut	10% or more dn 20-25 year Immed	Fut	City	30 year no to 2% down Immed	Fut	25 year 5% down Immed	Fut	20-25 year 10% dn or more Immed	Fut	Conventional Interest Rates h
96	97	98-99	98-99	99	99	99	99	Atlanta	a	a	a	a	a	a	5¼-5½
96	98	par-101e	par-101e	par-101e	par-101e	par-101e	par-101e	Boston local	par-101	par-101	par-101	par-101	par-101	par-101	4¾-5
—	—	97-98	97-97½	97-98	97-97½	a	a	out-of-st	94-94½	94-94½	94-94½	94-94½	a	a	—
96	97	98-par	98	98-par	98	98-par	98	Chicago	94-96	a	94-96	a	94-96	a	5
96	97	98-par	98-par	99-par	99-par	par	par	Cleveland	95-96b	95b	a	a	a	a	5¼
96	96½	97½-99	97½-99	98½-99	98½-99	99-pare	99-pare	Denver	94-95	94-95	95-96b	95-96b	95-96	95-96	5¼-5½
96	96½	98-98½	98	98-98½	98	98½-99	99	Detroit	94-94½	94½	95-95½	95½	95½-96b	96b	5½
96	97	96½-98	96½-98	97-98	97-98	98½-99	98½-99	Houston	92	92	92	92	a	a	5¼-5¾
96	97	97-98	97-98	a	a	98-99	98-99	Jacksonville	94	94	a	a	a	a	5¼-5½
96	96½	97	97	97½	97½	98	98	Los Angeles	93-94g	93-94g	a	a	a	a	5½-6
96	97½	par	99½-par	parb	99½-parb	par	par	Newark	97½	97	98½-99	98	99	98½	5¼-5½
96	98	par	par	par	par	par	par	New York	98½d	98½d	98½d	98½d	98½d	98½d	5¼-5½
96	96½	97½-98	97-97½b	98-98½	97½-98	99	98-98½	Okla City	94-95b	93½b-94b	94-95b	93½-94b	95	94	5½
96	97½	par	par	par	par	par	par	Philadelphia	96-97b	96-97b	96-97b	96-97b	97b	97b	5-5¼
96	96½	97½-98½	97f	97½-98½	a	99-parb	a	San Fran	94b	94f	a	a	a	a	5½-7.2
96	97	96-98½	96-98½	97-99	97-99	98-par	98-par	St Louis	93-95	93-95	95b	95b	95b	95b	5¼-6
96	97½	98½-99	98-98½	98½-99	98-98½	99-99½	98½-99	Wash, DC	95-95½	95-95½	95½-96½	95½-96½	95½-96½	95½-96½	5¼-5½

* 3% down of first $13,500; 15% of next $2,500; 30% of balance.

SOURCES: Atlanta, Robert Tharpe, pres, Tharpe & Brooks Inc; Boston, Robert M Morgan, vice pres, Boston Five Cents Savings Bank; Chicago, Maurice A Pollak, exec vice pres, Draper & Kramer Inc; Cleveland, William T Doyle, vice pres, Jay F Zook Inc; Denver, C A Bacon, vice pres, Mortgage Investments Co; Detroit, Stanley M Earp, pres, Citizens Mortgage Corp; Houston, Donald McGregor, exec vice pres, T J Bettes Co; Jacksonville, George Dickerson, Stockton, Whatley, Davin & Co; Los Angeles, David Northridge, vice pres, The Colwell Co; Newark, William F Haas, vice pres, Franklin Capital Corp; New York, John Halperin, pres, J Halperin & Co; Oklahoma City, B B Bass, pres, American Mortgage & Investment Co; Philadelphia, W A Clarke Sr, pres, W A Clarke Mortgage Co; St Louis, W C Rainford, pres, Mercantile Mortgage Co; San Francisco, Raymond H Lapin, pres, Bankers Mortgage Co of Calif; Washington, DC, Hector Hollister, exec vice pres, Frederick W Berens Inc.

- Immediate covers loans for delivery up to 3 months; future covers loans for delivery in 3 to 12 months.
- Quotations refer to houses of typical average local quality with respect to design, location and construction.
- Quotations refer to prices in metropolitan areas; discounts may run slightly higher in surrounding small towns or rural zones.

Footnotes: a—no activity. b—very limited market. c—very limited par market. d—quotations cover construction loans also. e—on FHA 4¾% mortgages. f—projection. g—92½ if over $20,000. h—banks and insurance companies tend to lend at lower end of range (if any shown). S&Ls at upper. w—FNMA pays 98 for FHA 5¼% mortgages of $13,500 or less after ¾ point purchasing and marketing fee and ¾ commitment fee. x—FNMA pays ½ point more for loans with 10% down or more. y—FNMA net price after ½ point purchase and marketing fee, plus 2% stock purchase figured at sale for 50¢ on the $1. z—price after ¾ point purchasing and marketing fee, plus ¾ point commitment fee; applies only to VA mortgages of $13,500 or less.

NEW YORK WHOLESALE MORTGAGE MARKET

FHA 5¼s	VA 4¾s	VA and FHA 4½s
Immediates: 96-98	Immediates: 93-94	Immediates: 91-92
Futures: 96-97½	Futures: 93-94	Futures: no activity

Prices for out-of-state loans, as reported the week ending Sept 12 by Thomas P Coogan, president, Housing Securities Inc.

Note: prices are net to originating mortgage broker (not necessarily net to builder) and usually include concessions made by servicing agencies.

FNMA STOCK

	Sept 10	Aug 13	Month's low	Month's high
Bid	55¾	57½	54½	57½
Asked	57¾	59½	56¼	59½

Quotations supplied by C F Childs & Co.

Award-Winning Builders Say . . .

"HOME BUYERS LIKE THE BURKES SOLD US ON 2-FURNACE BALANCED HEAT"

"We have been installing American-Standard 2-Furnace Heating in our homes for the past year," say Chuck Beir and Dick Higgins of Beir-Higgins. "We made the first installation because the 2-Furnace idea made sense to us . . . it seemed ideal for the type homes we've been building. Split levels, generous use of glass, separated living and sleeping areas, finished basements and rambling layouts present no heating problem with a 2-Furnace system . . . and the cost is little more than a single unit system.

"The Burkes of our Briar Hill Development in Allendale, New Jersey are typical of the success we have had with 2-Furnace Balanced Heat. When they first came to inspect our model, Mr. Burke was very enthused with the American-Standard 2-Furnace system and its obvious advantages of longer furnace life . . . better heat distribution and the forecast of lower fuel bills. I'm sure it played an important part in the sale. After their first winter, Mrs. Burke told us in glowing terms how delighted she was with the comfort of 2-Furnace heating.

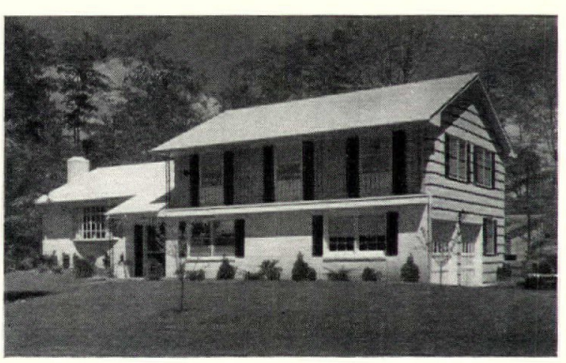
"We are aware of a definite sales advantage when selling a home with 2-Furnace heating. We now feature this system as a key selling point in every home."

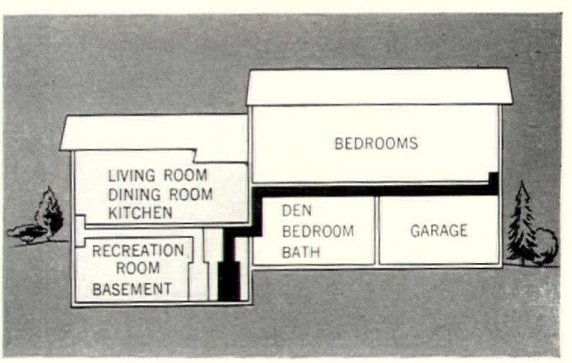


Richard Higgins, left, and *Charles Beir* form Beir-Higgins . . . New Jersey builders of award-winning homes.



Mrs. Burke is now looking forward to the easy addition of summer air conditioning to her 2-Furnace system. Units will be installed on top of furnaces and have the same complete versatility as the Winter Balanced Heat system.





The Burkes home has been zoned into two separate heating areas; each with its own furnace and thermostat. A Model GUA-50 (50,000 Btu) warm air furnace handles the left wing, while a larger GUA-125 (125,000 Btu) furnace supplies comfort for the balance of the house.

2 FURNACES FOR THE PRICE OF 1— for model home zone control installations:

Contact your local American-Standard Warm Air Heating Dealer or write American-Standard, Air Conditioning Division, Dept. HH-10, 40 West 40th Street, New York 18, New York.

To prove our point that two American-Standard furnaces for zone control will make the heating system your number one selling feature, American-Standard Air Conditioning Division distributors and their dealers offer you—for your model home—two furnaces at the same price as a single furnace of equivalent Btu capacity! Before you place another heating contract why not take advantage of this offer? Prove to yourself that a two-furnace zone control system will become your best salesman.

Provide more comfort . . . lower fuel bills . . . longer furnace life! Your customer doesn't have to take these advantages on faith! Here is extra value he can see—two furnaces instead of one!

* American-Standard and Standard* are trademarks of American Radiator & Standard Sanitary Corporation.

American-Standard Products

AMERICAN-Standard

AIR CONDITIONING DIVISION

continued from p 41

HOUSING MARKET:

Rental vacancy rate up 30% in year but multi-family starts still climb

An exclusive HOUSE & HOME news roundup

The boom in rental housing construction that started last year shows no signs of a slowdown—but there are signs in some cities that a slowdown may be in order.

Reason: temporary overbuilding has become a very real possibility. Explains one executive of a property owners' group in Cleveland: "There is no overbuilding yet but every development brings danger a little closer. There is a small red light showing."

Private multi-family starts for the first eight months of 1958 reached 104,600, up 30% from the 80,200 of the same period in 1957. And F W Dodge reports contracts on rental construction up 44% in July from July '57.

Vacancy rates are edging up in many cities (but not New York). The Bureau of Census found in its second quarter rental vacancy survey that the rate in urban areas had gone up 30% in a year—from 2.0 to 2.6%.

The situation has become so bad in Los Angeles that several lenders have imposed an indefinite ban on more apartment house loans.

The vacancy rate in unfurnished units in LA has reached 10.18% and foreclosures are creeping up. Yet multi-family starts are still outstripping single-family starts for the second straight year. They reached 27,972 for the first seven months of 1958 vs 23,891 for the same period in 1957. And July was the biggest July on record.

Biggest glut, say lenders, is in the middle-rent bracket: $85 to $115 a month for a one-bedroom unit. Most overbuilt area is the San Fernando Valley where the vacancy rate has reached 16.70% in unfurnished units. (Vacancies in furnished units average 2 to 4% less throughout the city.)

To woo tenants, some owners are offering free rent for one to four months, free groceries, green stamps or even use of a car. Yet landlords find older buildings easier to rent than new ones because rents are lower for the same amount of space.

Apartment men figure the brakes on lending will bring vacancies back to normal in six to 18 months. Says Arthur E Neelley, vice president of the California Federal S&L: "We started worrying about the apartment house situation 12 to 15 months ago. Finally, we stopped making new loans. We'll take another look at it in about six months and as soon as the error has been corrected by population growth, we'll be interested again."

Fear of overbuilding—or even positive signs of it—are showing up in other cities.

A HOUSE & HOME nine-city survey brought out this evidence:

Minneapolis: Multi-family starts for the first seven months shot up from 342 last year to 2,020 in 1958. Current vacancy rate in new rental units is 10%. Reports one of the city's largest rental management firms: "Our vacancies are running 50 to 100% ahead of this time last year. For-rent classified ads in the Minneapolis *Star & Tribune* are up 32%; wanted-to-rent ads are down 47%.

Cleveland: Says one builder: "The scramble for housing is nothing like it used to be. You work to get tenants. Price is important, even when it involves only $5 a month." Agrees another: "A tenant today has a different psychology. All over town he sees vacancy signs so he bargains from strength." Starts on multi-family units reached 1,423 for the first half of 1958 compared to 1,084 in 1957. Current vacancy rate is 2.5% vs the 0.1% of several years ago.

Houston: Multi-family starts are up 118% from 1,160 for the first seven months of 1957 to 2,530 in 1958. Now, vacancies are also on the rise. One owner of two new buildings reports 5% vacancies in one; 50% in the other. FHA in Houston refuses to insure multi-family project loans. Explains Director Keith McCanse: "We didn't like the outlook and we have no plans to change our mind at this time."

Chicago: Multi-family starts in the first seven months were off 20% from 1957 (4,867 vs 6,074). Chicago's vacancy rate has doubled —from 0.7 to 1.4%—but it is still so low most experts do not foresee a glut. One exception: big rental builder Herbert S Greenwald believes there may be an oversupply of rentals for the next two years, with a vacancy rate of as high as 10%. But he expects demand will shoot up in the 60's.

San Diego: Multi-family starts are up 35% in the first seven months (from 2,068 to 2,782). FHA, taking note of an estimated 4.5% vacancy rate, has decided to insure loans on only 2,000 rental units this year. It has 1,200 applications in process and an estimated 1,800 more in the wings. Builder Victor Selten started 160 units on Kearny Mesa, completed 50 and decided to stop.

Atlanta: The rental boom reached Atlanta just this year. Multi-family starts were almost double their 1957 pace for the first seven months (955 vs 496). New units are renting well, but at the expense of some outlying apartment buildings—particularly FHA 608's. Current vacancy rate: only 1 to 2% in Negro units but 6 to 8% in white.

Kansas City: Here, too, the rental boom has just begun. For the first seven months, starts jumped 206% (380 vs 124 in '57). Admits realtor-manager William Haas: "Business is so good we are considering raising some rents in some of our better locations."

Seattle: Rental housing is still only a small portion of starts: only 177 of the 3,507 total in the first seven months. Even so, the vacancy rate is rising, particularly in the northeast section of the city—apparently as more families move from apartments to their own homes. Estimates put the rate at 8% in the northeast area vs an average of 5% elsewhere in the city.

FHA adds help in effort to erase backlog by Nov 1

FHA's battle against the backlog is again making progress—after three weeks of losing ground. By Nov 1, the agency expects to be back to near-normal.

Beginning the weekend of Sept 6, FHA authorized overtime and per diem workers in every office with a sizable backlog of applications. Many offices were also told to hire more permanent employees.

FHA had to stop all overtime and per diem work in mid-August when its supplemental $4.6 million appropriation bill was held up in Congress. It finally passed in the waning hours, was signed by the President late in August. All but $100,000 of it will be used in the field offices.

In mid-September, 23 of FHA's 73 offices had backlogs of four weeks or more. The new champion: San Diego, 10 weeks behind.

Backlogs were cut by four weeks in Miami (from nine to five weeks) after FHA sent a 15-man task force in for three weeks.

Other clogged offices: Sacramento, nearly 10 weeks behind and Phoenix, seven weeks. Even Cleveland, which has been on a current basis, is now six weeks behind.

Builders in San Francisco were complaining of a VA jam even greater than FHA's.

In Columbus, Ohio, builders and realtors wanted to pay for extra FHA clerical help, were thanked but told the government could not legally accept it.

'608' buyer makes quick $30,000 profit on resale

A 60-unit apartment has been sold for $50,000 by a man who bought it from FHA for $20,000.

The project, Brookside Court, is located in Greenwood, S C. It was built in 1950 under the ill-fated Sec 608, had a $367,000 mortgage. FHA took it over in 1953 when the owners defaulted.

FHA took bids on Brookside Court and two other South Carolina projects in July. There were no bids on Brookside Court as of the closing day. Christian D Padgett, in a later bid on another project, also offered $20,000 for Brookside. FHA accepted.

The size of the bids on all three projects —from 5 to 10% of the original mortgage —brought a complaint in the Senate from Sen Olin Johnston (D, S C). He charged FHA had not advertised for bids in the localities where the projects were situated, could have gotten much higher bids if it had (Sept, News).

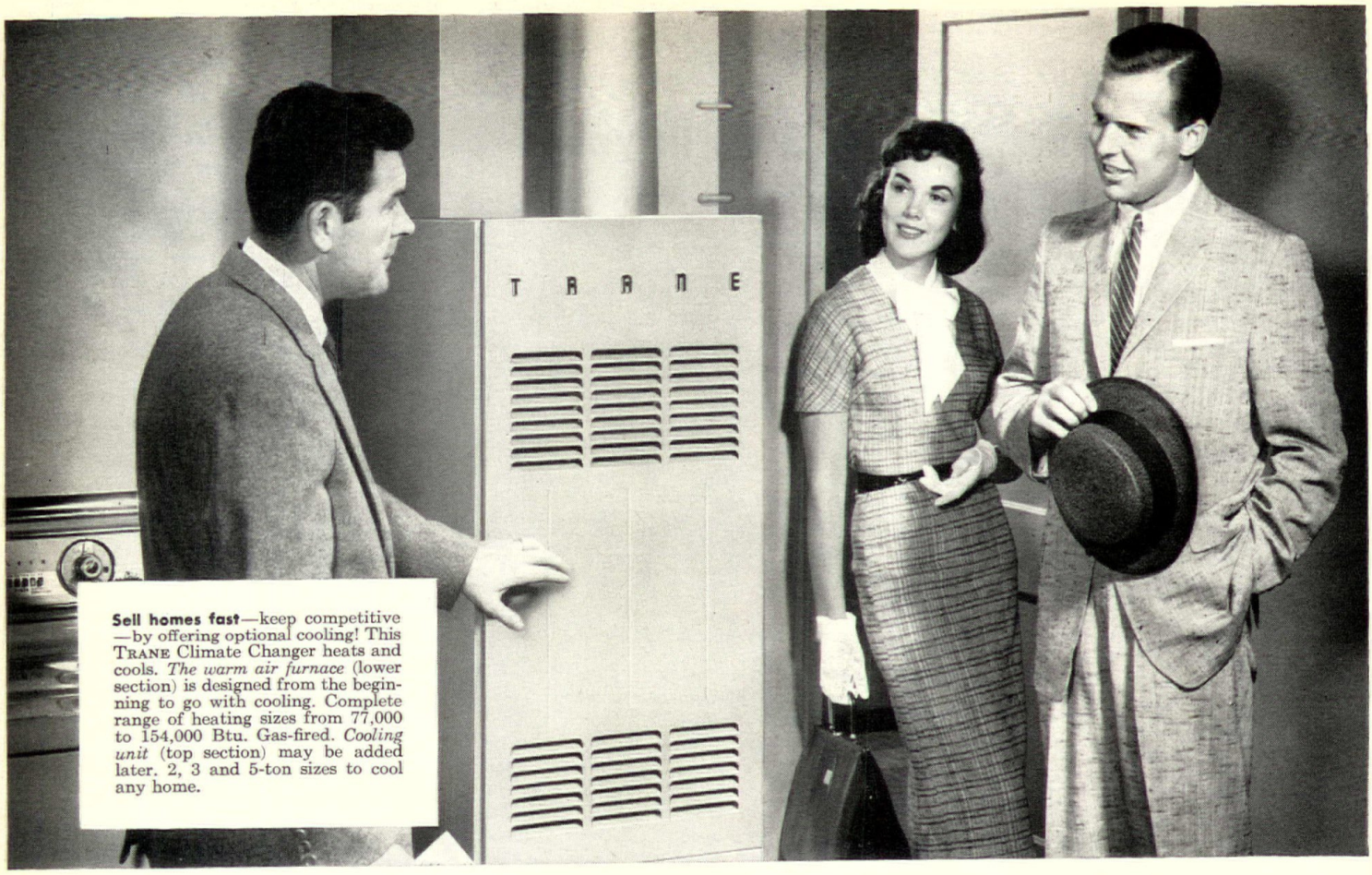
Senate housing subcommittee staffers made a quickie investigation as FHA delayed closings on the sales. The conclusion: there was nothing wrong with the deals. But FHA did agree to be more particular about where it placed its ads in the future.

FHA closed the deal with Padgett Sept 1. On Sept 2 Padgett resold Brookside Court to two Greenwood Corporations for $50,000.

An embarrassed FHA spokesman admits FHA did not know a resale was in the wind. But he points out that FHA had signed a contract with Padgett, had to close the deal or face a claim for damages.

Says a Senate housing subcommittee spokesman: the investigation is continuing.

NEWS continued on p 45



Sell homes fast—keep competitive—by offering optional cooling! This TRANE Climate Changer heats and cools. *The warm air furnace* (lower section) is designed from the beginning to go with cooling. Complete range of heating sizes from 77,000 to 154,000 Btu. Gas-fired. *Cooling unit* (top section) may be added later. 2, 3 and 5-ton sizes to cool any home.

Now! Offer year around heating-cooling—and still keep your home prices competitive

New Trane Climate Changer units give you optional cooling to go with any heating system

Now TRANE makes it possible for you to give your home-buyer customers their choice of heating—warm air or hot water—*with cooling now or later!*

TRANE Climate Changer equipment is versatile: there are TRANE Warm Air Furnaces—designed from the beginning to go with cooling. Adding bonnet or duct cooling units makes them year-around Climate Changers! And there are fan-coil type cooling units to go with TRANE Baseboard or other types of wet heat.

This means you'll enjoy complete flexibility to meet your buyer's individual needs and preferences—and still keep your prices in line for competitive selling. Whether heating is hot water or warm air, cooling can be an *optional feature.* When cooling is added, it is *matched* equipment, designed from the beginning to do a quality job in conjunction with the heating system chosen.

Designed and built by the company that has air conditioned everything from skyscrapers to jet planes, TRANE Climate Changers are rugged, dependable, easy to install. And every TRANE installation is handled by a carefully selected and experienced engineering contractor.

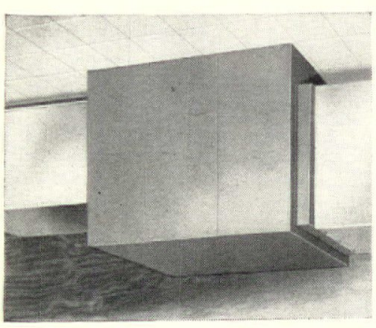
So for heating-cooling equipment that upholds your reputation as a quality builder, using quality materials and equipment, turn to TRANE! For information, call your TRANE Sales Office. Or write TRANE, La Crosse, Wisconsin.

For any air condition, turn to

TRANE

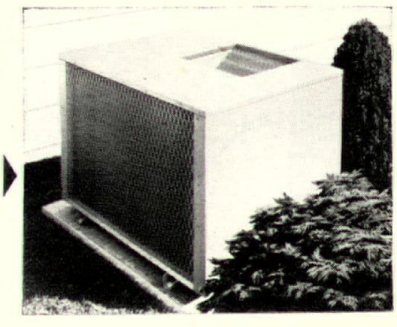
MANUFACTURING ENGINEERS OF AIR CONDITIONING, HEATING, VENTILATING AND HEAT TRANSFER EQUIPMENT

THE TRANE COMPANY, LA CROSSE, WIS. • SCRANTON MFG. DIV., SCRANTON, PA.
CLARKSVILLE MFG. DIV., CLARKSVILLE, TENN.
TRANE COMPANY OF CANADA, LIMITED, TORONTO • 97 U.S. AND 19 CANADIAN OFFICES



Cool with any heating system! This Climate Changer fan-coil unit fits into just 5 square feet in attic, utility room, basement or garage. Ideal for use with TRANE Baseboard and other types of wet heat systems. Sizes to cool any home or small commercial building.

Needs no water! Condenser and compressor unit for TRANE Climate Changers described above is air-cooled . . . eliminates water supply and disposal problems. Installed outside the home or building. Features high capacity, quiet operation, small dimensions.



continued from p 43

LOCAL MARKETS: why local data is still vital

The surge in US home building has quietly by-passed some of the nation's biggest—and usually steadiest—markets.

Areas which seemed to ignore recession in 1957 as other areas slumped now find themselves slipping while last year's weaklings make a comeback.

Uriel Manheim, housing economist with New York City's Housing Securities Inc, takes a look at these market shifts in a review of 1958's first half, concludes there are four major types of market, each responding to different influences. Specifically:

1. Some fast-growth cities with high building levels in 1957 have been slowing down this year because of less immigration or worsening business conditions. Examples: Miami, San Bernardino, Tucson.

2. Some areas which had been depressed particularly in heavily industrialized sections of the country, remain depressed. Examples: Baltimore, Buffalo, Detroit.

3. Some metropolitan areas which had extremely low building levels last year, are showing great gains, most of them are middle-sized cities. Examples: Corpus Christi, Kansas City, Memphis, Portland, Ore.

4. Some areas continue to prosper despite the recession as population influx continues. Examples: Orlando, Phoenix, Sacramento, San Diego.

Manheim has tabulated housing starts in 50 metropolitan areas for the first half of 1958, reports these percentage changes from the first half of 1957:

Akron	—16	Memphis	+62
Atlanta	+23	Miami	—22
Austin	+36	Minn-St Paul	+21
Baltimore	—16	Nashville	+35
Birmingham	+27	New Orleans	+20
Boston	—13	New York	+15
Bridgeport	— 1	Okla City	+43
Buffalo	—23	Orlando	+60
Chicago	—19	Philadelphia	—15
Cincinnati	+10	Phoenix	+35
Cleveland	—25	Pittsburgh	—11
Corpus Christi	+74	Portland, Ore	+40
Dallas	+46	Providence, RI	—20
Dayton	—16	Richmond	+22
Denver	+29	Sacramento	+90
Detroit	—26	St Louis	+55
Flint	—10	Salt Lake City	+28
Fresno	+ 7	San Bern-Riverside	—30
Hartford	—13	San Diego	+25
Houston	+12	San Francisco	+22
Indianapolis	+10	Seattle	+29
Jacksonville	+65	Tampa-St Pete	— 8
Kansas City	+51	Tucson	—14
Knoxville	+ 7	Washington, DC	+45
Los Angeles	—13		
Louisville	+13		

Manheim, at 34, a comparative newcomer to the ranks of housing economists, is now turning out some of housing's most interesting statistics and best market analyses (see local markets report).

Since he joined Tom Coogan's New York mortgage brokerage firm in 1954 he has produced the first city-by-city rundown of home building starts, with comparisons *while the figures are still fresh.* He edits an annual book of market analysis, covering the 75 major home building areas—a publication which has no rival—and Housing Markets, a monthly analysis of short range housing trends in major metropolitan areas. And he makes market surveys throughout the US.

Manheim's route into housing was roundabout. Born in Germany, reared in Israel, he came to the US in 1947 to study agriculture at the University of California, graduated in 1951. He was headed back for Israel when he visited Miami in 1952. There, he met and went to work for Dr Reinhold Wolff, head of the University of Miami's Bureau of Business and Economic Research.

Walter Daran



MANHEIM

Wolff had long before become interested in housing, did some work for Coogan and the local home builders. When Coogan and other builders set up Housing Securities in 1954 they picked Manheim as their economist.

Of his profession, Manheim says: "A housing economist is not a specialist in the sense the title may imply, but rather a jack-of-all-trades. . . . Lack of homogeneity in housing creates complicated and frequently beclouded issues which are only in part economic. It is up to the expert to untangle the web and separate the components."

• • •

From some areas in Manheim's study plus several others come these last-minute reports on housing business:

San Diego: Starts and sales, which didn't slump last year, are continuing to soar.

On top of last year's 22% jump in starts, San Diego shows a 25% gain for the first seven months of this year: 8,977 vs 7,687.

Big factor this year is VA no-down on houses in the $13,000 to $14,000 price range —particularly if they have two baths and extras like carpeting and kitchen built-ins.

Builder Frank Watts credits VA no-downs for sending his sales 300 ahead of construction. Hobart Homes and Bollenbacher & Kelton have had good sales success with gingerbread-covered models.

Plans for new tracts get bigger and bigger. The Hale Co plans 1,100 homes in Lemon Grove and Chula Vista. Bollenbacher & Kelton are starting a new tract of 2,200 units. Max Berlin, who has done well in Poway—a rural area north of the city—plans 4,000 more units there in the next 10 years.

American Housing Guild is half-way through its Mission Village tract, a 2,000 home subdivision on Kearny Mesa.

Atlanta: A summer pickup in sales has pepped up what had been a slow new-house market. Builder Ernest Keappler tells this story:

"On July 4, I had 14 unsold homes. I have sold all those, sold all I had in production and have a large advance sale. I don't have a crystal ball but I'm optimistic about the rest of this year.

"People are interested in houses again due to the decrease of pessimistic talk in newspapers, magazines and on radio and TV."

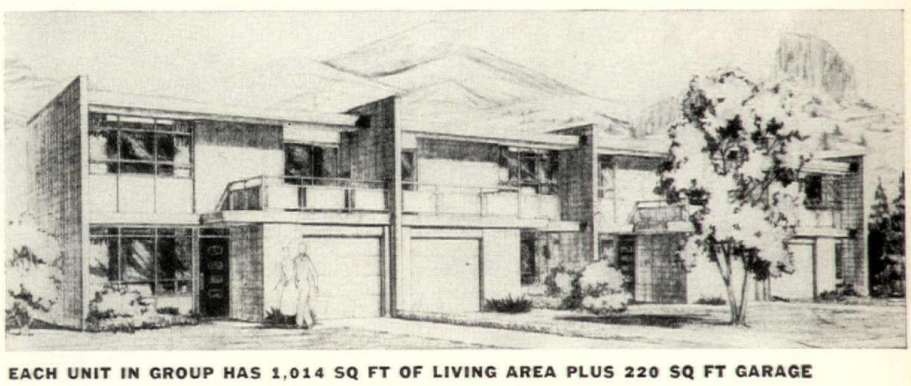
The summer pickup has pushed Atlanta area housing starts for the first six months of the year to 5,058 vs 4,100 in the same period of 1957, a 23% gain.

One of the biggest new tracts planned is that of Walter Talley. He has bought 400 acres, plans 200 houses in the $20,000 to $25,000 bracket and 500 in the $12,000 to $13,500 range, comments: "We think 1959 and 1960 are going to do something for us."

Kansas City: Private starts in the metropolitan area have soared to 4,500 for the first seven months, up 52% from the 2,946 in the first seven months of 1957. Starts for the year are expected to reach at least 7,200 vs 6,500 in 1957, an 11% jump.

Minneapolis: Single-family house starts are up 13% for the first seven months (2,638

continued on p 47



EACH UNIT IN GROUP HAS 1,014 SQ FT OF LIVING AREA PLUS 220 SQ FT GARAGE

Patio town house is a hit in Colorado Springs

The patio town house (H&H, Oct '57) has scored a significant success in the wide open spaces around Colorado Springs.

Builder Todd Sloan started 62 units—three or four to a building—sold 10 the week after the development was announced in local papers. Price: $12,500 for a 3-bedroom, 1½-bath unit. Each unit is on a 26'x100' lot with a 338 sq ft fenced patio.

Sloan calls the response to this project the greatest of any he has ever started. As part of the deal, he is offering lawn care on a monthly basis. Each building will have a sprinkler system.

There will be no overhead wires. "We wouldn't be able to see the sky for the wires with 26' lots," says Sloan. He will run everything underground, will also put in one master TV antenna for each building.

First buyers included a druggist who has no time for a large lawn, an Air Academy hostess who doesn't want a large lot, a man who likes to fish but doesn't like to mow grass. But Sloan believes most of his units will eventually go to retired couples and speculative buyers who want to rent them out.



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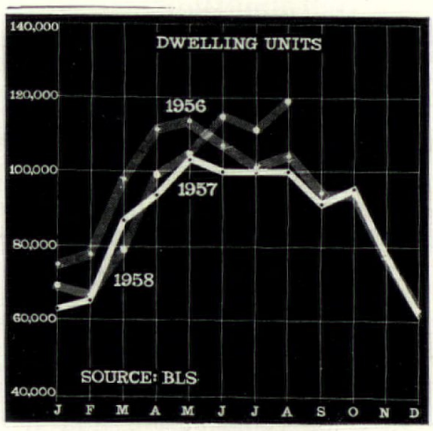
continued from p 45

vs 2,343 a year ago). Best price range: $12,000 to $14,600. VA no-downs sparked much of the surge. But there is less speculative building than there has been in some years. Explains Larry Nelson, home builders' executive vice president: "Builders are afraid to get out on a limb because they're afraid of tight money."

Chicago: First Federal S&L surveyed 4,000 of its 1957 mortgage borrowers, reports this picture of the "typical Chicago-area home buyer":

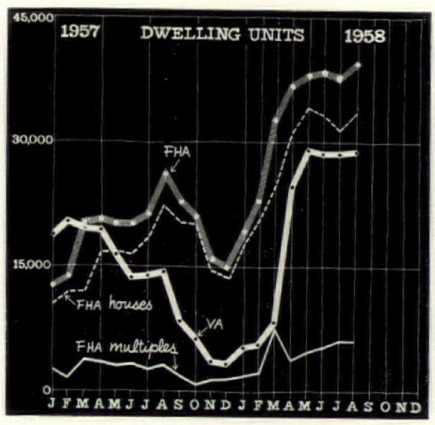
He earns $7,960 a year, buys a used house, spends 16 to 20% of his annual income on housing and is able to put down one-fourth to one-fifth of the purchase price.

The report also shows the buyer of a new home—outnumbered by used home buyers two to one—earns more ($8,175 a year) than a used home buyer ($7,825). Only 18% of the lowest income families buy new homes; 46% of the highest income families do.



HOUSING STARTS in August reached 119,000, (108,800 private, 10,200 public) highest since August 1955, 7.2% above July and 11% above August '57. Private starts were up only 1.4% from July but 12.4% from August last year. The seasonally adjusted annual rate of private starts went up to 1.17 million in August (from 1.16 in July, 1.09 in June and 1.056 in August 1957).

Total starts for the first eight months of the year are 764,500—7.3% over the 1957 rate. Private starts, at 717,300 are up 6.1%.



FHA & VA APPLICATIONS: FHA applications on new units started back up again in August after July's slight decline. The total of 39,653 (33,617 homes and 6,016 project units), was 4.7% over July and 37% over August of 1957. Applications on new homes alone were up 5.8% from July and 51% from August 1957. Project applications were down 1.1% from July. The eight month total for new units is up 67%.

VA appraisal requests reached 28,522—almost exactly what they were in July but 96% above August 1957. Eight-month total is up 15.7%.

MATERIALS & PRICES

Appliance leasing: an infant trend in apartment, used home markets

A few apartment builders are starting to rent appliances instead of buying them. The trend could catch on fast and might even spread—in another form—to existing one-family homes (for new homes, a package mortgage is still a better deal—mainly because monthly payments are lower*).

Public demand for air conditioned apartments triggered the new idea. Owners found they could avoid using their own capital to buy units by working out a lease contract, usually through small local financiers. Now, they reason, the same principle could apply to other equipment. "We've even been approached by a carpet firm," says Webb & Knapp's Dave Slipher.

Manufacturers are interested

Most major manufacturers are taking a careful look at leasing, and wonder if it is a good way to pick up more business. General Electric is developing a lease plan to operate through its subsidiary GE Credit Corp. At least five other firms are working quietly on trial deals. Example: Webb & Knapp's FHA Sec 220 Park West project in New York City, with optional through-the-wall room air conditioners will have some rented, some purchased units. Either way, cost to tenant is $5 extra a month for a 3½ room apartment (basic rent $149 a month). But there is a difference for the apartment owner, for whom leasing has these big advantages:

1) he can write off all payments as operating expense, and no capital is tied up; 2) he saves repair and replacement costs because maintenance may be part of the lease contract.

Tax benefits

Income tax rules sweeten the profit in leasing. Most equipment leases are written for five or ten years. And they are arranged so the lessor recovers his full cost plus profit at the end of the lease. A conditional sale contract usually runs three or five years (rarely seven). With dealer markups and financing charges, end cost to the user is about the same with either method. But an apartment house owner could only write off about 50% of his investment by the end of a typical five-year conditional sale contract because Internal Revenue Service rules require depreciation to be spread over the useful life of the appliance (eg: 10-12 years for air conditioners.

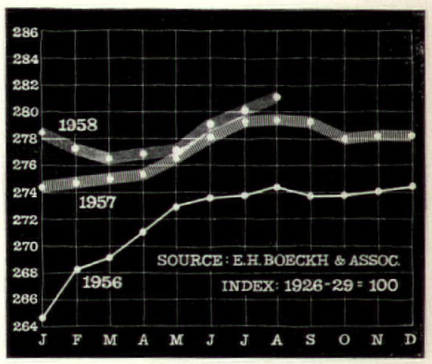
The field is full of tax traps. For instance, leases where equipment becomes a building owner's property at expiration won't get by the Internal Revenue Dept, warns one expert (they count as conditional sale contracts).

*A $200 water heater would add about $1.15 a month to a 30-year FHA mortgage. The same heater rents for $1.95 a month from a utility company, or costs $9.36 a month on a two-year appliance loan. Other package mortgage advantages: lower first cost (no dealer markup); cheaper installation. And the extra years of interest on long-term mortgages are partly offset because: 1) most FHA loans do not run to maturity (average 8.6 years); 2) capital not tied up can be invested or saved (at 3% interest).

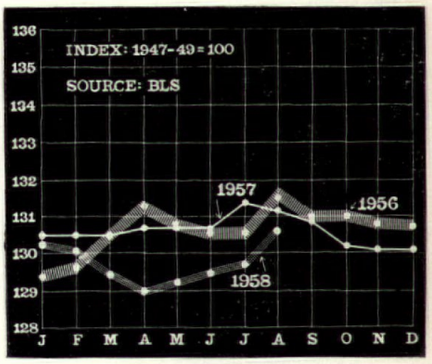
"Our top management feels that in future more homeowners will turn to renting," says a major appliance company official, "probably through utility companies." Utilities have long financed extended payment purchases of appliances, including lease-buy plans. They collect payments on monthly bills. Now, straight leasing is being tried by some for furnace burners and water heaters. One homeowner found he could rent a new burner from the Greenwich, Conn utility for $25 a year—exactly what it cost him for a service contract on his old burner. Appliance men admit servicing problems may give leasing its big push. "Every homeowner has had maintenance trouble with appliances," says one. "If he rents, it's someone else's worry."

Either way, it is the used home and replacement market where leasing is likeliest to take hold. Providence (RI) Gas Co, which has rented furnace burners and water heaters for three years, finds leasing encourages people to install new appliances and boosts gas sales. "Our main interest is to swing oil burners to gas," explains Heating Sales Manager W A Veasey; "builders still usually put the appliances in new homes" (where a package mortgage is still a better deal).

NEWS continued on p 51



RESIDENTIAL BUILDING COSTS rose 1.2 points in August to 281.3 on Boeckh's index. Labor and lumber ("as much as $2M in some areas") accounted for the increase—as they did a month earlier. The index has climbed steadily since April, but is only 0.7% above its Aug '57 level.



MATERIALS PRICES continued their slow climb that began in April. BLS's index stood at 130.6 in August—up 0.8% from July, but still 0.5% below year-ago levels. Main causes of the July-August boost: lumber and wood products (up 1.2%) and structural steel (up 3.8%).



He's on his way to show you a variety of Carey shingle lines and colors.

What's so different about this? It's just that this salesman is prepared to display Carey Shingle designs for every kind of sloped-roof building, and all the colors, just as they appear on a roof.

He won't clutter up your office with 500 pounds of sample boards. He won't take your precious time while he man-handles heavy samples.

This man displays his Carey® shingle lines the NEW Carey way . . . In life-size, full-color, life-like reproductions.

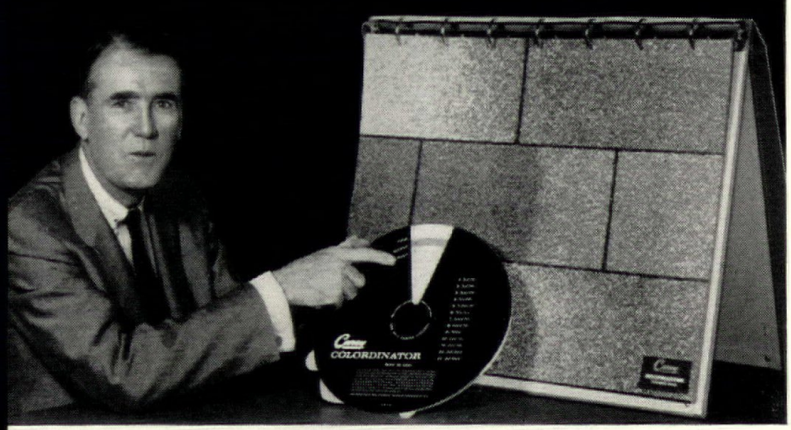
Each of the 29 Shingle Samples in this man's portfolio is a 20″ x 26″ panel.

Each panel is a life-like reproduction, in full scale and full color, of a section of roof laid up with Carey Shingles. The original 29 panels weighed over 500 pounds yet the complete set of reproductions in the kit weighs approximately 15 pounds.

Now Carey Roofing Shingles can be shown in the new and modern way—The Carey way. Now you can see all the lines and all the colors, for better color coordination and more harmonious design.

Plants at.....

This man is recommending color coordination for exterior decoration . . .



He's using the new Carey CŌLORDINATOR and the Carey shingle sample portfolio.

What's so new about this?

For the first time the building materials industry has a coordinated color system which cross-references roofing, siding, accent and trim colors for comprehensive *exterior decorating* plans.

This new Carey System establishes the color compatibility of Carey Roofing Shingles with all other color influences in building exteriors. And the man who's demonstrating how to select and coordinate these colors is Mr. Howard Ketcham, one of America's leading color consultants, who designed the Carey Color Coordinated System. Mr. Ketcham is using the Carey Cōlordinator to suggest body, accent and trim colors that harmonize with a Carey Roofing Shingle Sample in the salesman's portfolio.

The combination of the Carey Shingle Sample Portfolio and the Carey Color Coordinated System will aid architects, builders, lumber and building supply dealers, and home improvement contractors in the selection and recommendation of compatible colors and shingle designs for every building type. Your Carey representative is now showing the new Carey Shingle Samples and the Color Coordinated System. If he doesn't get around fast enough for you, give him a call. Or, write the Advertising Department for a brochure.

THE PHILIP CAREY MFG. COMPANY, Lockland, Cincinnati 15, Ohio

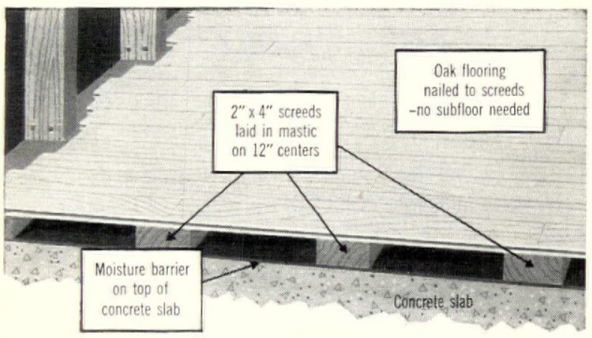
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Technical news from National Oak Flooring Manufacturers' Association

Low-cost way to install strip oak floors over concrete slabs

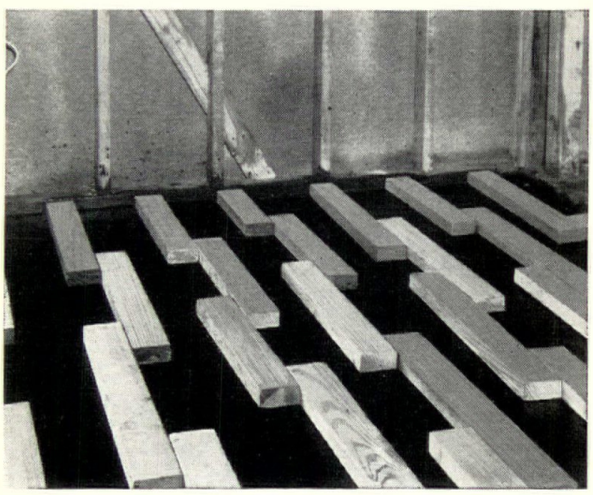


Screeds-in-mastic method is fast, trouble-free

If you use concrete slab foundations instead of wood joist construction, you can still lay strip oak floors. The easy-to-follow method described here requires no subfloor . . . and gives your slab homes the assured buyer acceptance of beautiful, durable oak floors.



1 Apply surface moisture barrier to slab and lay flat, dry, preservative-treated 2 x 4 wood screeds in hot mastic. Use random length screeds, 18″ to 30″.



2 Lay screeds at right angles to proposed direction of flooring, 12″ on centers with ends lapped 4″. Staggered pattern helps to provide good nailing surface.



3 Blind nail tongued-and-grooved, end-matched strip oak flooring at each screed intersection. Double-nail at lapped screeds. Finished floor is beautiful and durable.

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Please send free copy of your manual, "How To Install Hardwood Strip Floors Over Concrete Slabs."

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Address_____

City_____

State_____

continued from p 47

Opinions

Noteworthy comment on matters of moment to housing:


Blackstone

Walter Maynard, partner, Shearson, Hammill & Co, New York securities brokers:
"We've often contemplated with a smile the spectacle of a hovel with a Cadillac parked beside it. A more typical picture in the 60's may be a well landscaped suburban jewel with two Volkswagens in the garage."


Eisenstaedt-TIME

Retiring President **Harlow Curtice** of General Motors, when asked if GM plans to build a small car:
"Thus far it has not been economic to offer a small car. That is because you take the value out of it so much more rapidly than you do the cost of it."


Capital Press Service

President **Stewart Bates** of Central Mortgage & Housing Corp (Canada's HHFA, FHA & FNMA rolled into one):
"One reason why land cost has gone up so much is that many municipalities have run away from their ordinary prewar responsibility of bringing out trunk sewers and services to the land . . . Municipalities, when they are not paying for these things, can get very luxurious ideas as to the kind of equipment that should be laid down in a street."


H&H staff

Mortgage Banker **James Rouse,** speaking to the American Planning & Civic Assn at Philadelphia last month:
"Nowhere in our lives is the gap so wide between the tools to do a job and the effort extended to get it done as in the field of urban renewal."


AP

Robert Moses, Park Commissioner & Construction Co-ordinator, New York City:
"Among the architectural sharpshooters and eggheads who must earn a living in town and can't get away from it all are those who demand low horizontal gardens apartments where high ground values and construction economies dictate tall structures, those who insist that institutions shall not look institutional, and those who urge infinite variety of design of individual houses in the face of the fact that assembly line production can bring down prices."

HOUSING POLICY:

'Shotgun behind the door'

Will the strategy that killed the controversial 1958 housing bill boomerang next year?

Democratic leaders promise a bigger fight for more government lending, public housing—with FHA again as an unwilling hostage

"I hereby give notice," said Sen John J Sparkman (D, Ala) as Congress adjourned without adopting a comprehensive housing law, "that housing legislation shall be my first major activity when the 86th Congress meets—and I solicit the support of all those who see the urgent national need for more and better housing."

There seemed little question about it last month. Democrats who write the nation's housing laws are preparing to marshal their forces for an even bigger effort next year to put over the controversial and costly programs that led the House of Representatives to bottle up this year's bill.

And next year, they will apparently have a much better chance. Items:

• Both Houses of Congress, according to all the political forecasts, will have bigger Democratic majorities. Even with thin Democratic majorities, the scuttled 1958 housing bill passed the Senate by voice vote and rang up a 251 to 134 majority in the House—only six votes shy of the two-thirds majority necessary for adoption (because the House was voting under suspension of the rules).

• FHA will again be available as a hostage for public housing and other welfare-housing programs the industry opposes. This year, timely intervention by Sen Homer Capehart (R, Ind) won FHA a $4 billion increase in insuring authority in a separate joint Congressional resolution when FHA ran out of gas in late May. This was supposed to be enough to keep the government's chief housing operation running until June 1959. So pro-public housers were deprived of their customary tactic: threatening to let FHA die unless Congress approves a host of other programs many of its members dislike. But FHA will apparently run out of insuring authority this winter—perhaps even before Congress reconvenes—thanks to the big spurt in its business triggered by its lowest-ever down payments enacted in April as an anti-recession move.

Next year, while Congress debates how far housing will be turned into a social welfare activity, FHA will almost surely get only stop-gap authorization. FHA Title I repair loans, which expire in September 1959, will also get the hostage treatment.

• The Administration's tactics in waiting until Congress went home to stop paying an above-the-market par price for Fanny May special assistance loans has also angered Democratic housing leaders. "It is clearly evident that no action was taken before Congress adjourned because this was one of the Administration's devices to help defeat 1958 housing legislation," cries Sen Sparkman. "There is no doubt the will of Congress is well established in connection with the purchase of special assistance mortgages at 100% of value and I deeply regret to see the Administration completely ignore Congress."

The cleavage between Congress and the White House runs as deep on this issue as almost any in the growing spectrum of housing law.

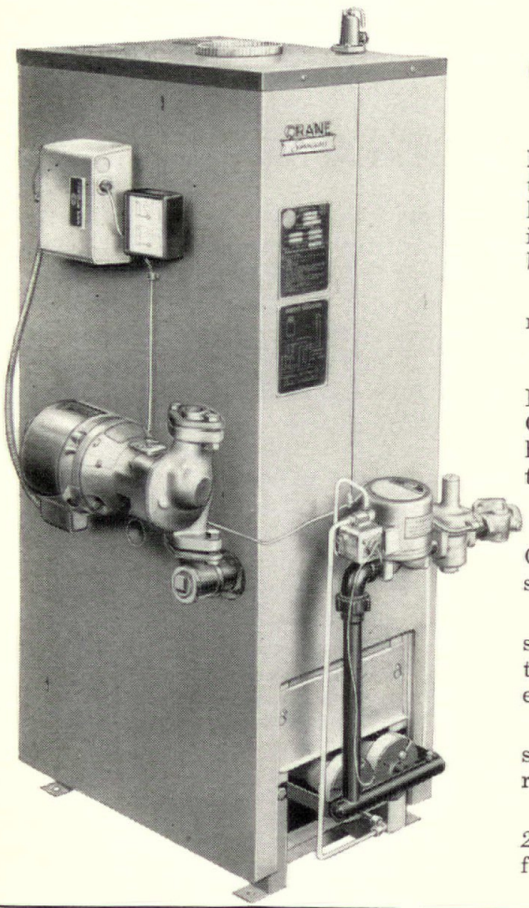
Democratic leaders in Congress—and some Republicans—have come to regard this kind of subsidy for the lucky few as crucial. House Speaker Sam Rayburn (D, Tex), for instance, observes that a housing act without Fanny May par-purchase in it had no meat for Texas home builders. "It's a shotgun behind the door," he says. Translation: a weapon to nudge private lenders into paying more for FHA and VA mortgages than they otherwise might.

President Eisenhower has denounced compulsory par purchase of VA and FHA mortgages in almost the same terms of outrage you would expect if Congress had decreed the Treasury had to buy up all the surplus production of sack dresses, now that fashion trends have left them in glut supply. "By not permitting the interest rate on VA guaranteed home mortgages to be fully adjusted to actual market conditions and by requiring purchases of these mortgages at par by FNMA," said the President, "the [anti-recession] legislation provides in effect for substituting $1 billion of federal financing for financing by private investors. This means that a wholly unnecessary burden of up to $1 billion will be added to the already heavy load on the taxpayers."

Mortgage men, who understand the economic better than the political facts of life, grow more and more bitter at the Congressional predilection for price-fixing VA and FHA mortgages. Cries MBA President Walter C Nelson: "The ¼% lift in [VA] interest was no more than a teaser to both borrowers and lenders. It still left prices on guaranteed

continued on p 53

New low cost SUNNYSAVER 26 gas fired hot water boiler



Comes prewired, preassembled—complete with all controls, accessories, and circulator

Now—at a new *lower* cost—you can offer exceptional Crane features to home buyers. A new *tankless* water heater! A new noiseless ribbon burner! And many more advance-designed features in a single, low-cost package—the Sunnysaver 26—newest gas boiler in the Crane line.

This new boiler is shipped in one crate with controls and equipment tested and coordinated . . . ready to install!

Year-round hot water. No tank needed!

Prospective home owners are quick to see the advantages of Crane's new *tankless* water heater. Turns out plenty of laundry-hot water all year round! Saves the space and cost of a water tank or separate water heater. (Optional with 4-section boiler.)

Quiet, clean-burning—no backflash, no roaring flames

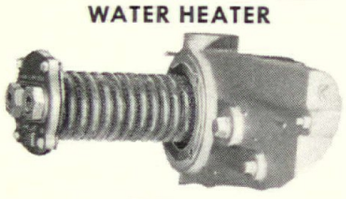
Crane's new stainless steel ribbon burners give a high-powered silent blue flame, squeeze the most heat from any gas.

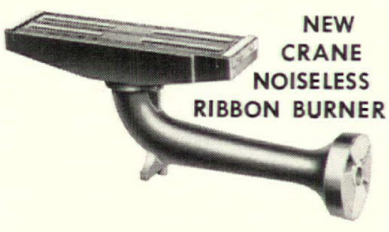
Exclusive Crane "staggered fin" cast iron sections are of a simple, concave design that eliminates "hot spots" and incrustation. Boiler is Fiberglas insulated, comes in attractive gray baked enamel jacket.

The new Crane Sunnysaver 26 boiler comes in either 3- or 4-section models, A.G.A. approved for all types of gas. 3 section rated at 100,000 Btu/hr input, 4 section rated at 150,000 Btu/hr.

Boiler sections are fully backed by Crane's famous, original *20-year guarantee*. Call your Crane Builder Representative for full information now!

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NEW CRANE NOISELESS RIBBON BURNER

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continued from p 51

loans 4 to 5 points below par at the most favorable point in the recent money market. Why the fixed-rate incubus is visited on mortgages and no place else in the investment world is impossible to rationalize . . . It creates a major source of instability. Yet the political devotion to this dangerous idol persists . . . The government has learned the folly of . . . trying to control [interest rates on government bonds] . . . Yet here the belief remains that an interest rate can be what some agency says it ought to be and that, even though the result is to thwart the purposes for which the related legislation has been enacted, some great principle has been vindicated."

2% direct federal loans urged by Charles Abrams

New York lawyer Charles Abrams, whose No. 1 pursuit for the last three years has been battling for Negro integration, has sharpened up his plan for socializing most mortgage lending.

Last winter, chairman Abrams of New York's State Commission Against Discrimination wrote a 15-page pamphlet, *US Housing: A New Program* (March, News) in which—among many other things—he suggested Congress should appropriate $2 billion for HHFA to make "direct, 45-year loans to low income families at interest rates ranging from 0% to the market rate, depending on family income." And he suggested the government start writing second mortgages at artificially low interest rates so FHA and VA could get out of the first mortgage market.

Now, Abrams has developed his plan into a short statement of housing philosophy that could well curl the hair of private businessmen. "Long-term federal loans at 0% to 2% on a minimum house would enable low income families to buy homes," he wrote in HOUSE & HOME's sister publication, LIFE. "A $14,000 mortgage at government cost (3%) for a 35-year loan would cost the home buyer only $650 annually. The housing question for the average family is therefore not insoluble financially. The problem is political. We have built up a system of mortgage finance under which the government guarantees the risk of the mortgage lender instead of the owner. I think a politically practical compromise might be feasible through federally financed second mortgages, in addition to conventional first mortgage loans by private institutions . . . It would be the only way a major break could be made in the housing bottleneck."

Abrams' plan, of course, would slice interest costs—by forcing taxpayers to subsidize mortgage loans. But the real trouble is that cheap money has always meant costly land and materials. Unless he manages simultaneously to repeal the laws of supply and demand, Abrams' scheme would set off a wave of housing cost inflation that would make the 74% jump in building costs since 1945 look like a ripple. Just where the government might get the billions of dollars to pour into such a plan, Abrams did not venture to say. But the answer is obvious: from the US Treasury, just as Fanny May now does to buy "special assistance" mortgages. The drawbacks are identical: it would substitute public for private financing and force either (1) more inflationary deficit financing of the national debt or (2) higher taxes.

URBAN RENEWAL:

URA rations its dwindling funds and a political hurricane gathers

The Administration has started rationing urban renewal funds. And the formula for doing so (see below) is so complicated you almost won't believe it.

The stretch-out is dictated by defeat of the 1958 housing bill, which left urban renewal without its customary annual injection of fresh federal money. The Urban Renewal Administration has only $154 million left to earmark for slum projects (including $100 million President Eisenhower allocated from withheld reserves). URA has grant applications from 112 cities totaling $358 million.

URA's approach is to spread the money around to take care of as many cities as it can. So it has clamped a rigid ceiling on how much money any one place can get in any one fiscal year. Roughly, it amounts to $3 per capita for cities from 1,000,000 population up (as of the 1950 census). But smaller cities can qualify for more per capita—all the way up to about $6 a head for tiny towns.

Political repercussions of the move may be considerable. Even before URA disclosed its plans Sept 9, to hear the cries rising from Democratic spokesmen you would think catastrophe—and not just irritating delay—had befallen US cities when the housing bill died in the House of Representatives.

If URA hadn't turned to rationing, it could have approved grants-in-aid for only a quarter of the 112 cities waiting in line. Even with the rationing formula, URA's money will not cover all the applications.

So officials in Washington are returning all pending applications which would require more money than the new formula allows. Cities will have to scale them down to fit the new lean look and resubmit them. If they don't manage to do so in six weeks, they'll have to go to the end of the line—which means they won't get any money now.

Slide rule rescue

The language of Local Public Agency Letter No. 157 announcing how renewal rationing will work should delight connoisseurs of federalese. It reads: "The fiscal year ceiling for each locality is related to its population and may be stated, in dollars, as follows:

$$100{,}000 + 3P\left[1 + \frac{1{,}000{,}000 - P}{1{,}000{,}000}\right], \text{ where}$$

P is the population.

"In no case will the ceiling for a locality be less than $100,000 plus $3 per capita . . ."

Here is how this works, according to URA officials:

Take a city of 300,000 people (eg, Jersey City). Divide 1,000,000 into 700,000. The latter figure is the difference between its population and 1,000,000. This yields a result of 0.7. Then you add 1. The resulting 1.7 is what URA calls the "population adjustment factor." Multiply that by $3, and you have $5.10. That's the per capita amount for renewal grants for a city of 300,000. Now, multiply the $5.10 by the population of 300,000 and add $100,000 to the result. You get $1,630,000. That is the most URA will grant in a year—if the city has a project that meets all its other requirements, too.

To let small cities do slum clearance on a big enough scale to make it work at all, URA adds one loophole. Cities under 250,000 pop. may qualify for up to two times their fiscal-year ceiling—for one project. And cities under 50,000 pop can get three times the annual ceiling for one project. But they can't have any more until their bonus is absorbed by quotas for later years.

Swelled by rationing of grants, the storm over urban renewal shows signs of blowing into a full scale political hurricane. Sen John J Sparkman (D, Ala), the housing leader of the upper chamber, set the tone when he told the US Conference of Mayors at Miami Beach: "The Eisenhower administration has been and is now committed to a general policy of reducing federal participation in urban renewal and low-rent [i.e. public] housing . . . [It] was unwilling to submit the issues to the judgment of reasonable men of both political parties and of both houses of Congress. Thus a voice vote of approval in the Senate and a roll call approval of a majority of the House was thwarted by deliberate intervention from the executive branch. I am forced to conclude that this intervention was inspired by personal considerations approaching petulance . . . "

Echoed Mayor Robert Wagner of New York: "An uncompromising House coalition of anti-grant-in-aid forces employed parliamentary devices to block passage of any urban renewal legislation . . . "

Cried Sen John F Kennedy (D, Mass): "The hard facts are that [the housing bill] was killed by the disproportionate strength of congressmen from non-urban areas." Argued Wagner: cities can't persuade state legislatures to give them enough of their own tax revenues to finance renewal. So before the federal government cuts back grants-in-aid, urban citizens must achieve "a substantially equal vote" in state legislatures.

HHFAdministrator Al Cole moved to set the record straight. "The action [of Congress] was a vote of disapproval of various other controversial objectionable features in the bill," he wired Republican Mayor Norris Polson of Los Angeles.

But among the nation's mayors, it looked as if almost nobody was listening.

'World Bank' for renewal urged by Albert Greenfield

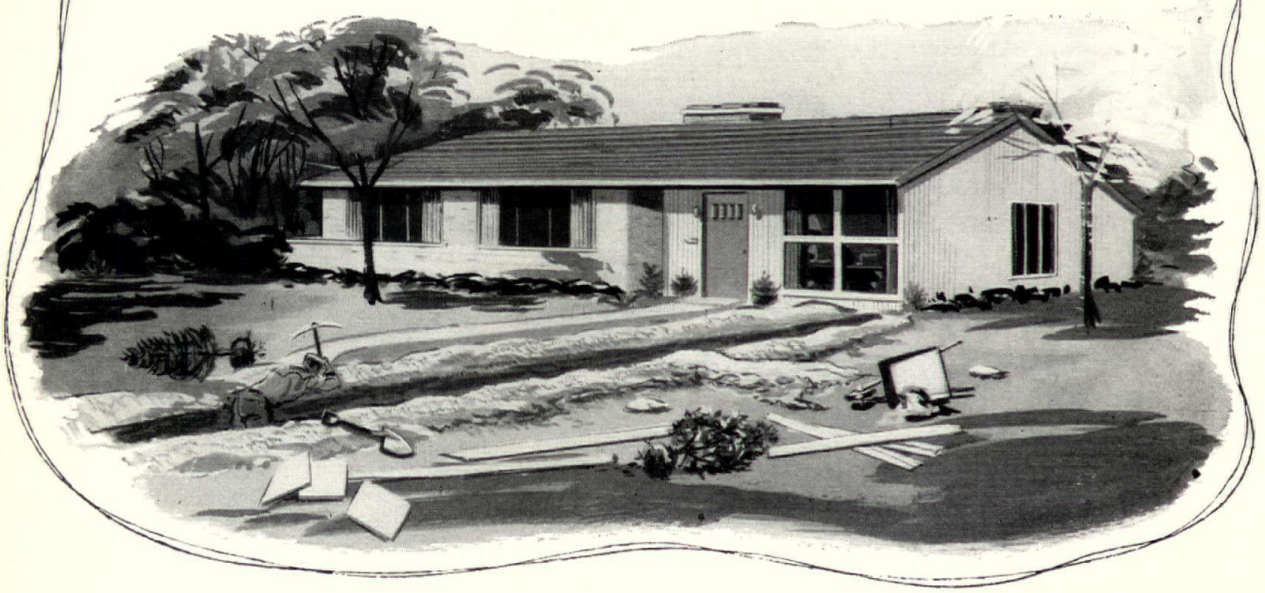
What urban renewal needs is something like the World Bank—an organization to finance sound plans to save US cities.

The man who says so is no less an authority than Albert M Greenfield, 70, the Philadelphia real estate and retailing tycoon—and former (1956-58) chairman of its planning commission.

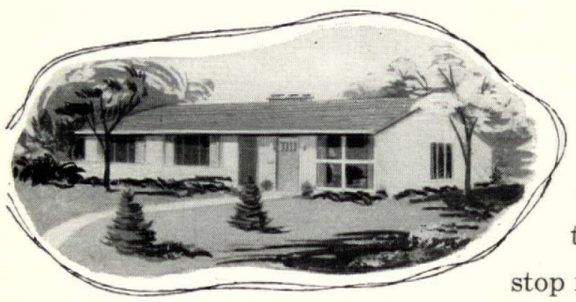
Greenfield urges that big business redevel-

NEWS continued on p 55

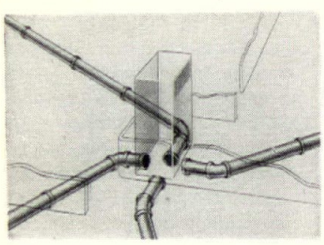
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opment groups like Pittsburgh's Allegheny Conference, Cleveland's Development Foundation, the Urban Redevelopment Corp of St Louis—joined by nationally known and reputable developers—form a National Council for Urban Renewal. It would "search out financing methods for individual projects and seek to make money available to communities which come before it with balanced, feasible and proper plans." This way, he says, renewal might be speeded up "at least to a par with the rate of deterioration within our cities."

He is also campaigning for creation of a special deputy to the President as "a catalyst to bring all the efforts of the federal government in urban renewal into focus."

FHA to hire six experts to promote 220 and 221

FHA will step up its promotion of the still lagging Sec 220 and 221 programs.

With part of a $4.6 million supplemental appropriation FHA will hire one urban renewal expert for each of its six zone offices to promote the two programs. Each man will visit all the offices in his zone where there is a potential for 220 (urban renewal rental housing) and 221 (relocation housing).

One of the most frequent criticisms of 220 and 221 has been that many field office officials are ignorant of how the programs work, thus have been small help to local builders who are interested.

New York public housers try rehabilitation, find it is cheaper than new units

New York City public housers have just tried out rehabilitation—and found it $8,200-a-unit cheaper than new construction.

It is the first time in the state that rehab structures have been planned as a part of a big new public housing project.

Two six-story brownstone apartments, 50 years old, were picked for what the state housing division calls "an experiment to determine the feasibility of rehabilitating old but structurally sound residential buildings."* Private contractors and public housing maintenance employes combined to give them complete renovation. The cost was $3,000 per apartment, or $957 per rental room (most of the 59 units had 3½ rooms). Says Housing Commissioner Joseph P McMurray: "These costs compare with current construction costs at new state-aided housing projects of $11,200 per apartment, $2,400 per rental room and $1.21 per cu ft [compared to 29¢ for rehab]." Experts figure the renovated structures are good for another 50 years.

Reporting the outcome, McMurray added: "This has demonstrated the value, economy and feasibility of both public and private investment in housing rehabilitation under suitable conditions. I wish to stress suitable conditions, because all too frequently the conditions are not suitable." At Frederick Douglass Houses, near the edge of the burgeoning Harlem ghetto, suitability includes a generous amount of open space. The complete project, which includes 1,999 units of new state-subsidized public housing (at $18,198 a unit) covers only 15% of its 21.7 acres.

* Six years ago, Builder Alan Brockbank, then NAHB president, pronounced himself aghast (after a tour of Manhattan) that the city was demolishing so many salvageable structures to make way for giant public housing projects.

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BADLY NEGLECTED HOME was bought for $3,000. Another $3,000 went for fixup materials, $2,100 for labor, $1,600 for appliances.

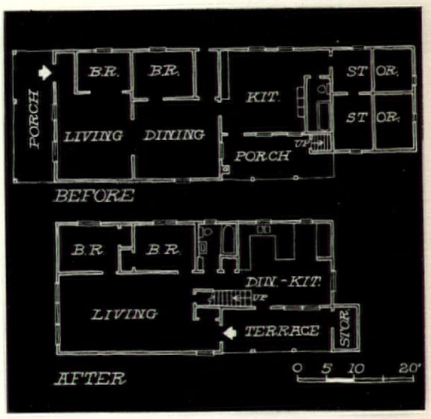


SAME HOME after renovation, would sell for $11,000 to $12,000, rent up to $130 a month in good locations, say builders.

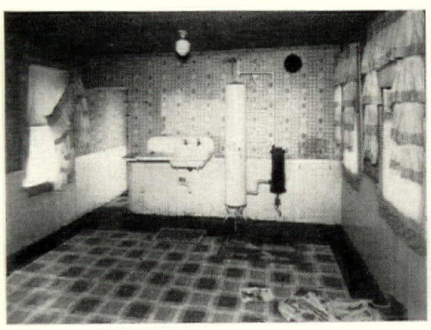
Model rehabilitation excites Buffalo

When Buffalo (pop. 582,000) launched an anti-blight drive this year, local builders joined with the board of realtors to buy and remodel two of the city's worst homes to show what can be done. They chose an area where inspectors have visited 1,500 homes since May to check what repairs are needed to comply with a recently adopted housing code (builders say 24,000 of the city's 169,000 homes need fixup jobs, another 8,000 are too bad to save). Local banks agreed to finance rehabilitation with conventional mortgages (up to 90% at 5½%) or FHA Title I repair loans.

Executive Vice President John C Donovan of the builders assn called public reaction "amazing." He explained: "They look at 'before' pictures and still they can hardly believe the original condition. The trend [to fix up] is definitely spreading to the block . . ."



REMODELING moved main entrance from front to side for more living room area, added two extra bedrooms via new attic dormer.



OLD KITCHEN's contrast with new was dramatized by "before" pictures in show home.



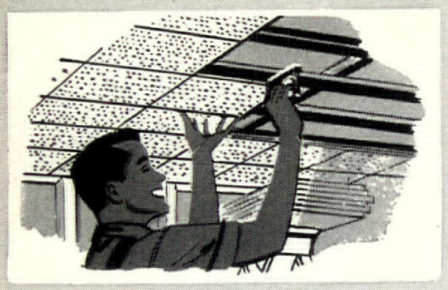
NEW KITCHEN-LAUNDRY was special attraction for home's visitors (4,000 in first week).



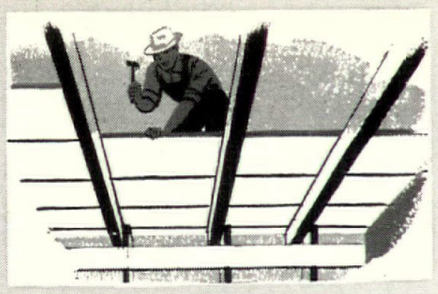
RAMSHACKLE BACK PORCH and untidy side yard were cleaned up to make entrance patio.



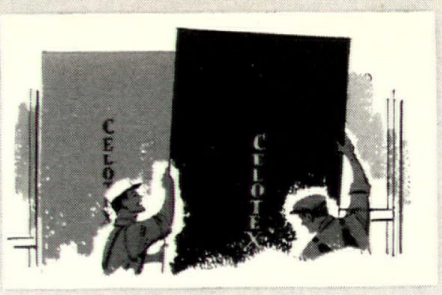
ATTRACTIVE APPEARANCE of renovation shows touch of architect (Charles M Ihlenfeld).



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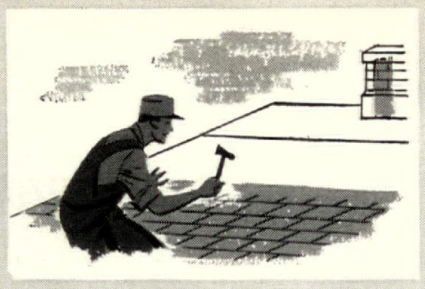
Speeds decisions...Helps close sales!

†TRADE MARK

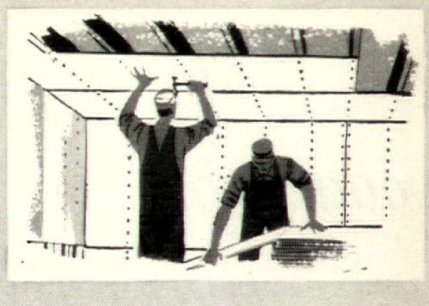
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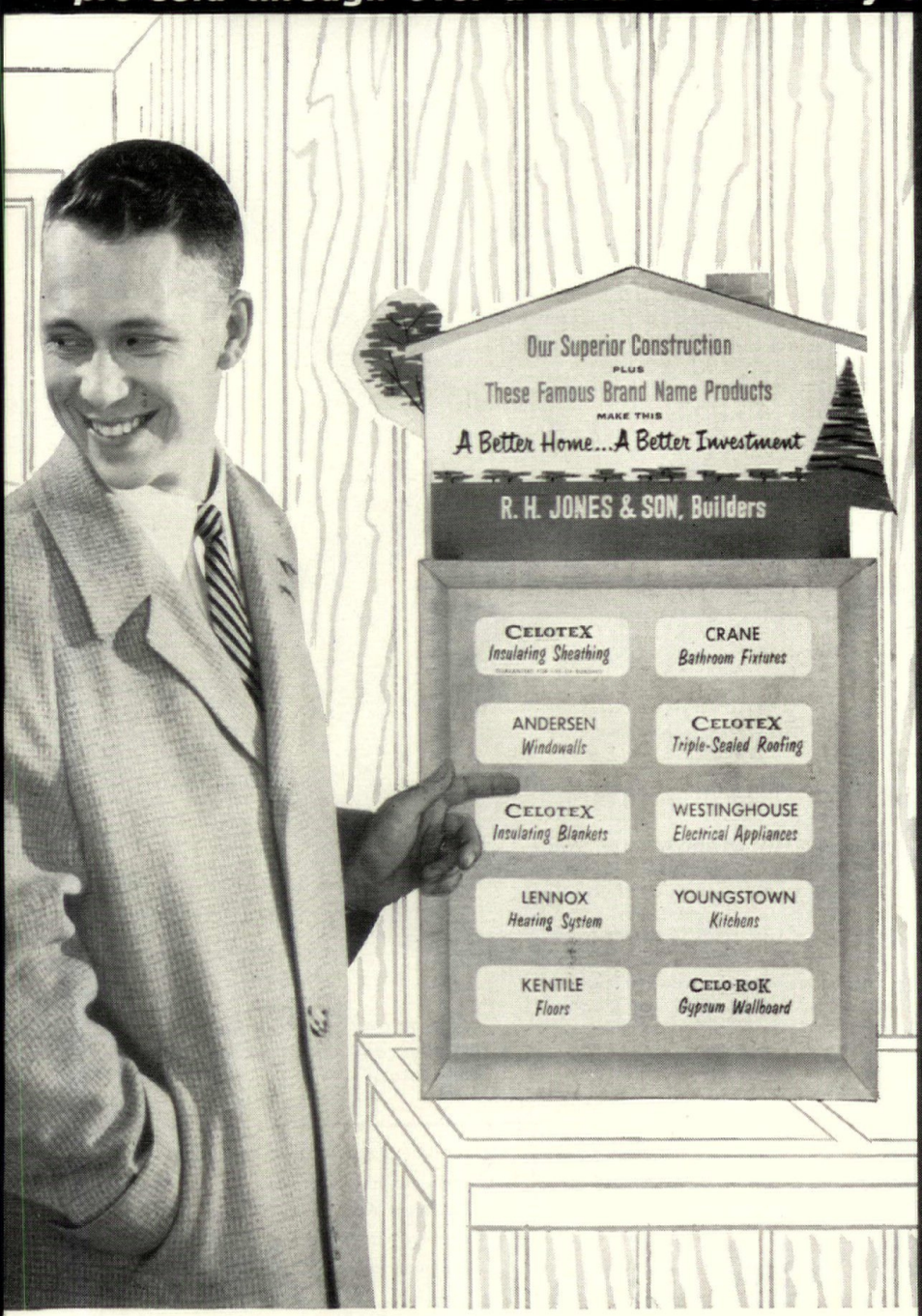


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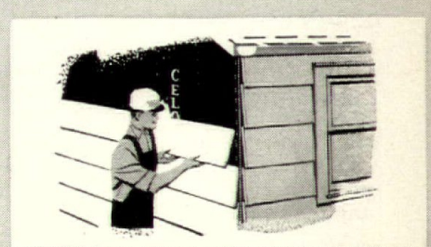
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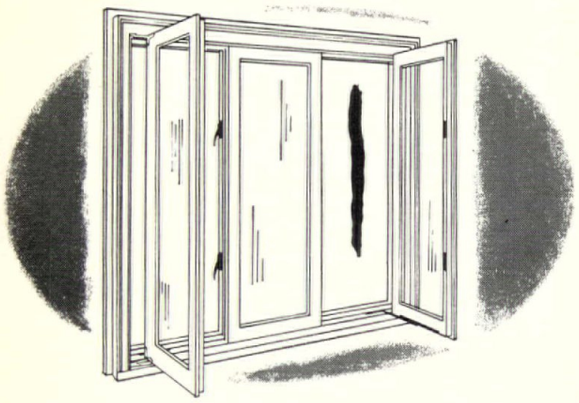


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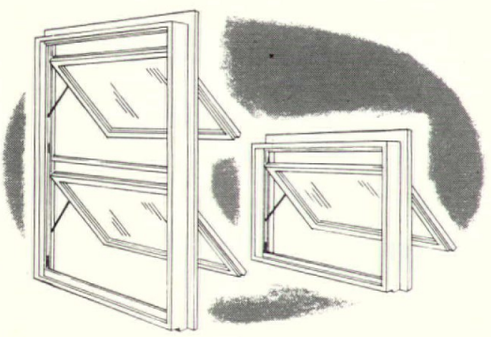
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COMMUNITY FACILITIES:

Most house starts banned in Omaha as city faces sewage disposal crisis

Home building in and around Omaha has come to a near-standstill—a result of a critical sewage disposal problem.

State health officials have ruled new houses can be started only if they have direct connections to an existing sewer line. This naturally excludes tracts in the planning stages.

Reason: the state is working with the US Public Health Service to clean up the sewage-fouled Missouri River. Omaha's lone sewage treatment plant and a small one outside the city, operated by a special district, are both overloaded. Any new lines would have to go into the polluted river—and the state will not allow it.

New starts are banned (see map) in eastern Omaha, largely built-up anyway, western Omaha and the adjoining suburban area—locale of most Omaha tract building.

Not really a surprise

The crackdown was not entirely unexpected. Eighteen months ago, T A Filipi, director of sanitation for the Nebraska Health Dept imposed a similar ban but lifted it after a few days when the city promised to double the capacity of its one municipal treatment plant.

City officials hoped to finance this job with part of an $18 million bond issue for sewers. But the $18 million issue was one of 13 in a $68 million capital improvements program which the voters rejected in toto last June.

Another $8 million bond issue is on the November ballot but its chances are considered only fair. Meantime, the city has undertaken a $2 million expansion of the treatment plant with current revenue. But even when completed, this will add only enough capacity to serve the western portion of the city—not the eastern part.

And no one knows just what progress Filipi and the State Pollution Board will insist on before they lift the ban in either area.

1,000 starts held up

John O Bolin, executive secretary of the Omaha home builders, estimates 1,000 houses may eventually be held up by the ban.

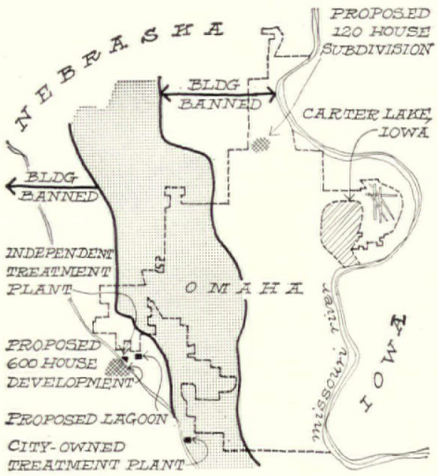
Among those which are not are 150 homes underway in Carter Lake, Ia, a town of 1,600 that nestles on the Nebraska side of the Missouri River between Omaha and the Omaha airport. These homes continue to hook into sewers which dump raw sewage into the Missouri. Iowa has yet to do any thing about this pollution.

Builder Don Decker also found a way around the ban. He was planning a 600-house development just outside the city's western limits; expects to build some of the houses himself, sell lots to other builders.

Faced with an indefinite delay, he took the suggestion of Omaha Public Works Director George Fisher that he build a lagoon-type sewage disposal plant to handle his problem until a new interceptor could be put in, linking the area with the expanded city treatment plant.

Some residents of the area protested vigorously to the city council (the council has building jurisdiction in unincorporated areas within 3 mi of the city limits) in the uninformed belief that a lagoon would send up a stench.

When the state health department approved the lagoon plan, the city council did likewise. Decker will pay the cost of a line to link to the proposed interceptor (about $50,000)



BUILDING IS ALLOWED IN SHADED AREA

if it is built. This hinges on outcome of the $8 million bond election. If the interceptor is not built, he will build his own treatment plant.

Septic tanks okay

Ironically, septic tanks are still approved in the Omaha area if they are on lots capable of handling a 150′ lateral—larger than economically feasible for small homes.

Builders have never been encouraged by the city to build their own private treatment plants. Reason: the city is leery of taking responsibility for independent plants. A suit to find out if the city can assume the bonded debt of an annexed sewer district is pending in court.

Big Florida home builders become utilities executives

A 1953 crackdown on septic tanks has had a curious result in Florida: it's made utilities moguls out of some big builders.

In 1953 Miami builders found themselves in a position much like Omaha builders today. FHA and VA said they would approve new tracts only if they had prior approval of the State Board of Health.

And David B Lee, state sanitary engineer, told builders that he would approve only developments with sanitary sewage disposal systems—no septic tanks on anything less than half-acre lots or where it was economically not feasible to put in a sanitary system.

New developments not already committed by FHA and VA came to a halt, but only for a brief time. Several builders quickly started work on their own disposal systems and treatment plants.

One of the first to go into the utilities business, Col Nathan Rood, has since become the biggest. His original system in north Dade County now services 2,500 homes and is built to take care of 10,000. He owns three more companies in adjoining Broward County.

Rood, who doesn't build homes anymore, estimates average cost to a builder to get sewage service for his tracts is $600 a lot.

Builder David Blumberg's Florida Water and Utilities Co now serves 1,900 homes with water and 1,600 with sewage disposal.

One of the biggest private utilities companies, based on potential, is Carol City Utilities, owned by John McArthur, president of the Bankers Life Insurance Co. Other builder-owned systems: Rex Service Co, David Woolin, Sam Sapiro and the Mackle Co.

Rates for the builder-owned utilities are currently controlled only by the trust agreements with FHA and VA. The builders association wants to put regulation in the hands of the Florida Railroad and Public Utilities Commission, primarily to keep it out of the hands of a proposed local rate setting body.

Builders finance $13,000 study of local regulations

How local laws and regulations affect home building will be studied by the Villanova Law School on a grant from the Philadelphia home builders.

The builders have collected $13,000 among themselves, mortgage bankers and realtors to finance the study. Villanova will:

- Compile, study and compare state and local laws governing home building and land development in the four fastest-growing metropolitan Philadelphia counties.
- Make surveys in areas of dispute to find out whether assumptions for codes and regulations are supported by the facts.
- Arrange seminars on local government and building industry problems in which local officials and builders will take part.

Philadelphia builders hope the study will lead to more favorable laws and regulations, more cooperation from local officials.

NJ town must accept modern design, says court

A quaint New Jersey village of only 37 houses has lost its fight to keep out contemporary design.

A Bergen County judge has held that no town can legislate taste, and so ordered the Borough of Rockleigh to issue a permit for the town's first non-traditional house.

Rockleigh is just 17 miles from New York City, has only 150 persons. Its 37 houses are Dutch Colonial, early American, Victorian and farmhouse American. It is zoned for two-acre lots only.

Early this year, John R Hankins, who has owned a lot in Rockleigh two years, had Architect George Vuinovich design a contemporary ranch-type home, part of it with a flat roof. But when he asked the town for a building permit he was refused.

Instead, the borough council enacted two amendments to the zoning ordinance, one requiring any new home to conform to the prevailing traditional architecture, the other banning flat roofs. (Said the amendment: "This council abhors the modern flat roof.")

Hankins took his case to court and won. But the borough has appealed. Issuance of the permit has been stayed until the appeals court can rule.

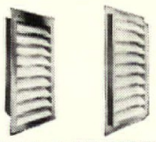
Gold Bond Aluminum Louvers and Ventilators



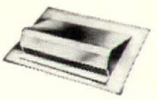
ADJUSTABLE LOUVERS 7 sizes up to 92″ base. from 4 to 8 vanes.



FIXED LOUVERS—4-12 pitch, 5 sizes from 7′ to 12′ base, 5-12 pitch, 6 sizes from 38″ to 115″ base.



FLUSH & RECESSED LOUVERS—Flush—11 sizes up to 30″ x 24″. Recessed—7 sizes to 24″ x 30″.



ROOF VENTILATORS—3 sizes. 16″, 26″ and 46″ width. Fit shingled roofs of any pitch.

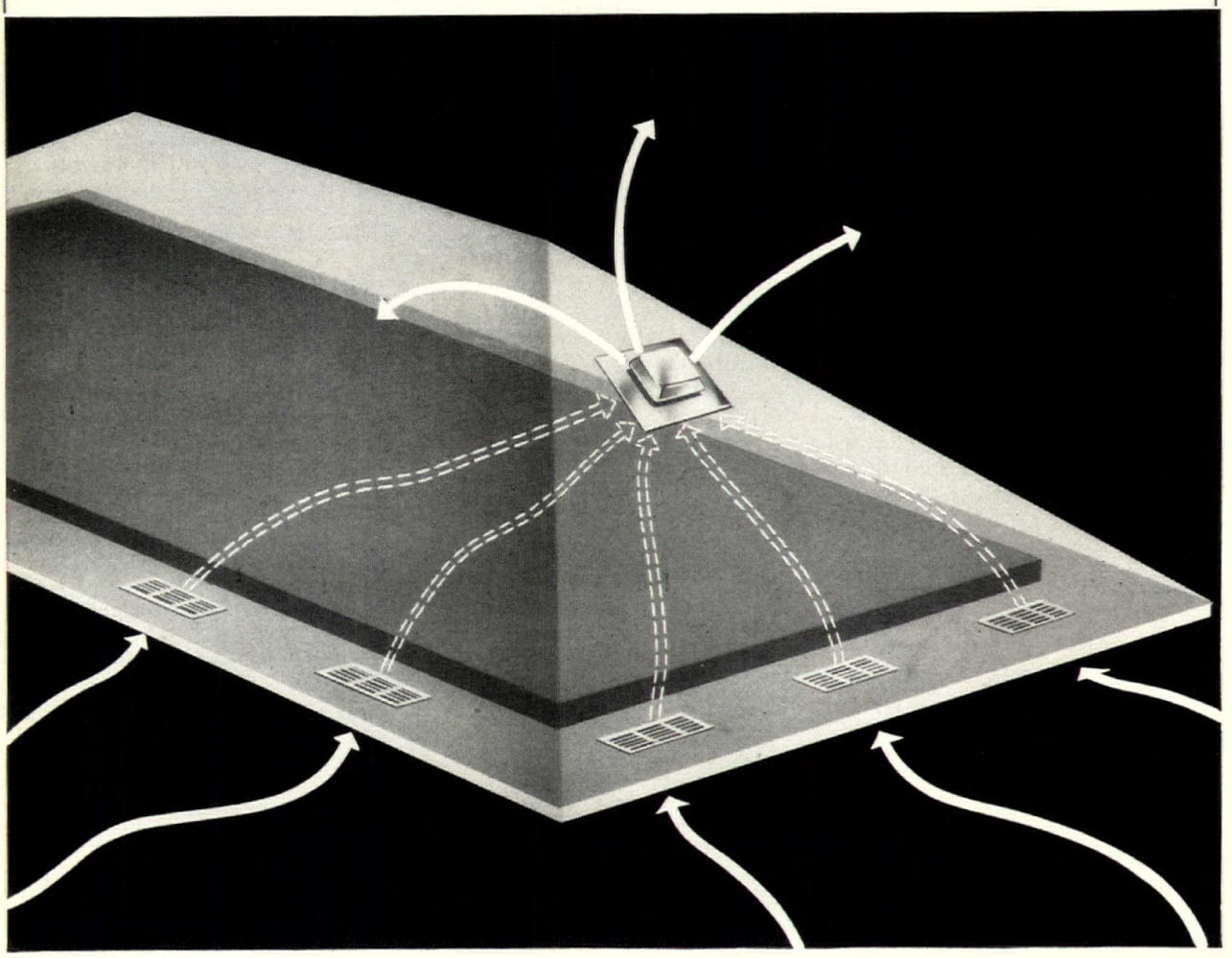


DOME ROOF VENT—8″ diameter stack fits around duct. Ideal for use with fans. Flange 16″ x 16″.



WALL AND UNDER EAVE VENTILATORS—For under-eaves, cornices or soffits. Sizes 16″ x 8″ and 16″ x 4″.

All louvers and ventilators furnished with FHA-required 8-mesh aluminum screen and formed from .025″ aluminum.



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Gold Bond Ventilators and Louvers are scientifically designed to do their job. Take the Dome Vent, for example. The trim, roof-hugging design provides more free area, yet is unmatched for resistance to wind, snow or rain leakage.

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Gold Bond
BUILDING PRODUCTS

NATIONAL GYPSUM COMPANY

continued from p 59

HOUSING ABROAD:

deGaulle drafts a scheme to undo ravages of 40 years' rent control

By Gurney Breckenfeld

France, the worst housed country in western Europe, has begun to turn away from the rigid economic controls that got her into such a mess.

No one is expecting overnight miracles. France's housing plight has been 44 years in the making. But Premier Charles de Gaulle's government has adopted a ten-point scheme which leans, not on bigger and bigger state subsidies to encourage building, but on removing the manifold impediments that now discourage French builders and investors from solving the problem themselves.

The roots of today's housing crisis go back to 1914 when France froze rents for World War 1. The same thing was done in other countries, but in France rent control became a permanent institution, as much a part of French life as a glass of wine or a sidewalk cafe. Before 1914, the average Frenchman spent about 16% of his income for housing. After World War 1, this dropped nearly to 1%. Even today, despite a series of government-decreed increases in rent ceilings, it is still no more than 5%.

Impoverished landlords

Meanwhile, 44 years of almost continuous inflation so withered the value of the franc that after World War 2 owning a building became a heavy liability; taxes were often higher than rents. New building dwindled away to almost nothing as capital went elsewhere in search of profits. A whole new class of impoverished landlords arose, thanks in part to stringent eviction laws which make it almost impossible to get rid of tenants. Lucky Paris families who have a big rent-controlled apartment for, say $20 a month often rent out attic rooms for as much as $70 to $80 a month. And half of France's legal profession is at work on landlord vs tenant cases.

On top of the generation of neglect, World War 2 destroyed half a million French dwellings and damaged three times that many. After the war, came a bumper baby crop. It only meant more trouble. In 1952, 25% of the couples married in 1948 were still looking for a place of their own to live in.

Statistical nightmare

The result is a housing mess in which even the cold statistics have a tinge of horror. According to the French National Statistics Institute, 18% of the country's houses were more than 100 years old in 1946, the last time a survey of housing conditions in France was made. Only 37% of French households had running water. Only 12% had sewer connections. Only 5% had bathrooms. Only 10% had central heat. Even in Paris, where the *average* age of buildings is about 85 years, one house in two is without plumbing. In Brittany, 45% of the houses have earth floors!

Crowding is getting worse instead of better. The collapse of France's overseas empire has dumped an estimated 250,000 colonial families into the mother country. They have bid up the price of housing so much in Paris that Americans there now report the complete disappearance of the "double standard" under which they used to pay far more than natives to buy a house. Sample: a small three bedroom house near the Bois de Boulounge that was on the market for $4,000 in 1948 will sell for about $60,000 today.

Inefficient industry

On top of these results of inflation and rent control, stagnation of building has left France with a woefully inefficient construction industry. In the words of an official French productivity survey, France is far behind the US in such vital items as job organization, quality control of building materials and materials handling. At the last count, there were 208,250 building contractors in France, of whom 90% hired less than six workers. Their methods are not much changed from Merovingian days despite strenuous efforts by government technicians to educate them in more modern techniques. Here, too, the government is largely at fault. It imposes a transaction tax which discourages the use of general contractors—or builders—who take the responsibility for the whole job. The tax—about 12% of the total price of a house or apartment—is levied on both labor and on materials' bills. So even the smallest contract is sublet. And plumbers and electricians too often have to rip out structural work to make room for their lines. Or they find the carpenters in their way and go off to another job. Until recently, on-site fabrication was subject to a 5.8% tax on labor, while factory prefabrication was subject to a production tax of 15.8%!

All things considered, some American officials in Paris who have studied what they call the "almost hopeless" French housing situation rate industry inefficiency as the No. 1 problem. There is a shortage of construction labor in France. Yet the industry clings to labor-wasting methods, notably including hand-movement of materials on site. And unions have fought the importation of more labor from Italy and Algeria.

Even so, France has begun to make a small dent in her backlogged housing need. Starts have risen from 84,000 in 1952 to 274,000 last year while the number of workers rose from 650,000 to 800,000. Construction of luxury apartments is booming; it accounts for perhaps half the total, while government-financed public housing covers most of the balance.

What De Gaulle plans

De Gaulle's ten-point plan seems to aim at gradually getting the state out of everything but construction of housing for low-income families. Its most revolutionary features are these:

1. Rent controls will be lifted on luxury and upper middle class housing. But owners will be allowed to keep only part of the higher rents. Part will go into a fund for slum rehabilitation by the government (there are 200,000 slum dwellings in Paris and more than 1 million throughout France).

2. The state will get out of luxury and middle class housing. Developers will have to rely on private capital (rent decontrol and state guarantees for investment are envisaged as the lures). As things stand now, the government's weird system of grants to subsidize interest on mortgage loans from state banks is producing almost entirely luxury rental construction.

3. France's real estate transfer tax will be abolished. It now runs up to 20%—a serious obstacle to home ownership and population mobility and a major incentive toward freezing families into units that are too big for their needs. Moreover, the tax encourages widespread evasion: most buyers declare only about one third of the price they actually pay for a house—to cut down the tax.

4. For the first time, the government will make an effort to act against speculation, both in land bought for government housing projects and in apartments built with government aid. In future land buying, De Gaulle's government plans to acquire huge chunks all at once—big enough for satellite cities—so construction of the first part of a project cannot drive up the cost of adjacent land to complete it.

5. Rents in public housing will be shifted from flat rates (as in Belgium) to sliding scale based on income (as in the US).

6. To create more incentive for home ownership, France's strange system of an inflation-proof savings bank for housing will be simplified. The setup now works much like an American "Christmas Club" account. When a would-be home owner opens an account at the special government savings bank (at 3½% interest), he settles on a specific price and down payment for his house. Then he starts saving the down payment. If inflation sends the price of the house up before he moves in, the government absorbs the difference.

Other items in the De Gaulle plan include 7) 30 billion francs to build more low-income public housing, 8) regional directors to oversee housing programs, 9) red-tape cutting—it now takes 15 months to get approval from Credit Foncier on a state-aided mortgage loan and 10) an end to government attempts to reclaim overpayments for war damages where less than 60,000 francs is involved.

For housing minister: an expert

The man charged with carrying out these ambitious plans is a 38-year-old government careerist, Pierre Sudreau who has already acquired a reputation for making foresighted decisions fast and for getting them carried out. As secretary general of the Seine since 1955, he managed to break all previous records for providing housing. When Sudreau announced his plans to the press, General De Gaulle underscored their importance by showing up himself at the start of the conference. Next day, De Gaulle backed Sudreau up with a public statement. But he cautioned: "It will be necessary to proceed by stages."

Skeptics note that every ministry since 1946 has given housing a high priority in its scheme of things, with little result. Will things be different this time? Judging by his previous accomplishments, Sudreau seems to stand at least a fair chance of success as housing minister. And if he succeeds in housing, France may well see a good deal more of him.

NEWS continued on p 65

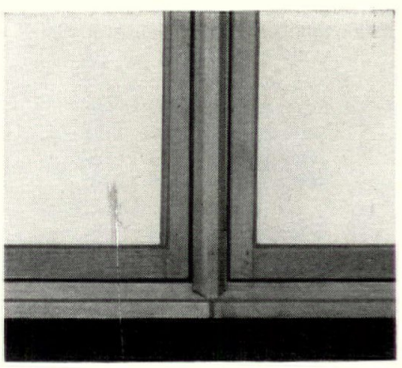
All New

BILT-WELL CASEMENTS

Provide Creative Window Arrangements for 15,000 Home **LEVITT** Project

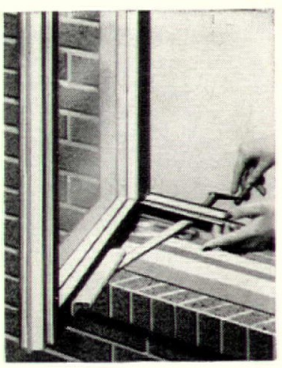
Internationally famous designer and builder of homes, Levitt & Sons, Inc., of Levittown, New Jersey, chose BILT-WELL Casements for their latest project after considering all other competing window units.

Here's Why



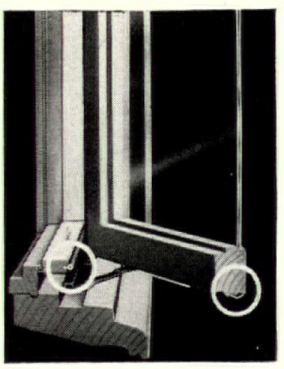
UNITIZED SILL

One of the outstanding features of the new BILT-WELL Casement that makes it the choice of leading architects and builders is its arrangement flexibility. The casement is uniquely engineered so that the sill is an integral part of the frame, eliminating the need for long, straight sills. Units can be grouped quickly and economically in any number of interesting combinations to add a touch of individuality to every home.



FOOLPROOF OPERATION

Feather-touch action for opening and closing the new BILT-WELL Casement is guaranteed by the use of specially designed and patented operator and hinge mechanisms. All hardware is concealed to provide trim, uncluttered appearance.



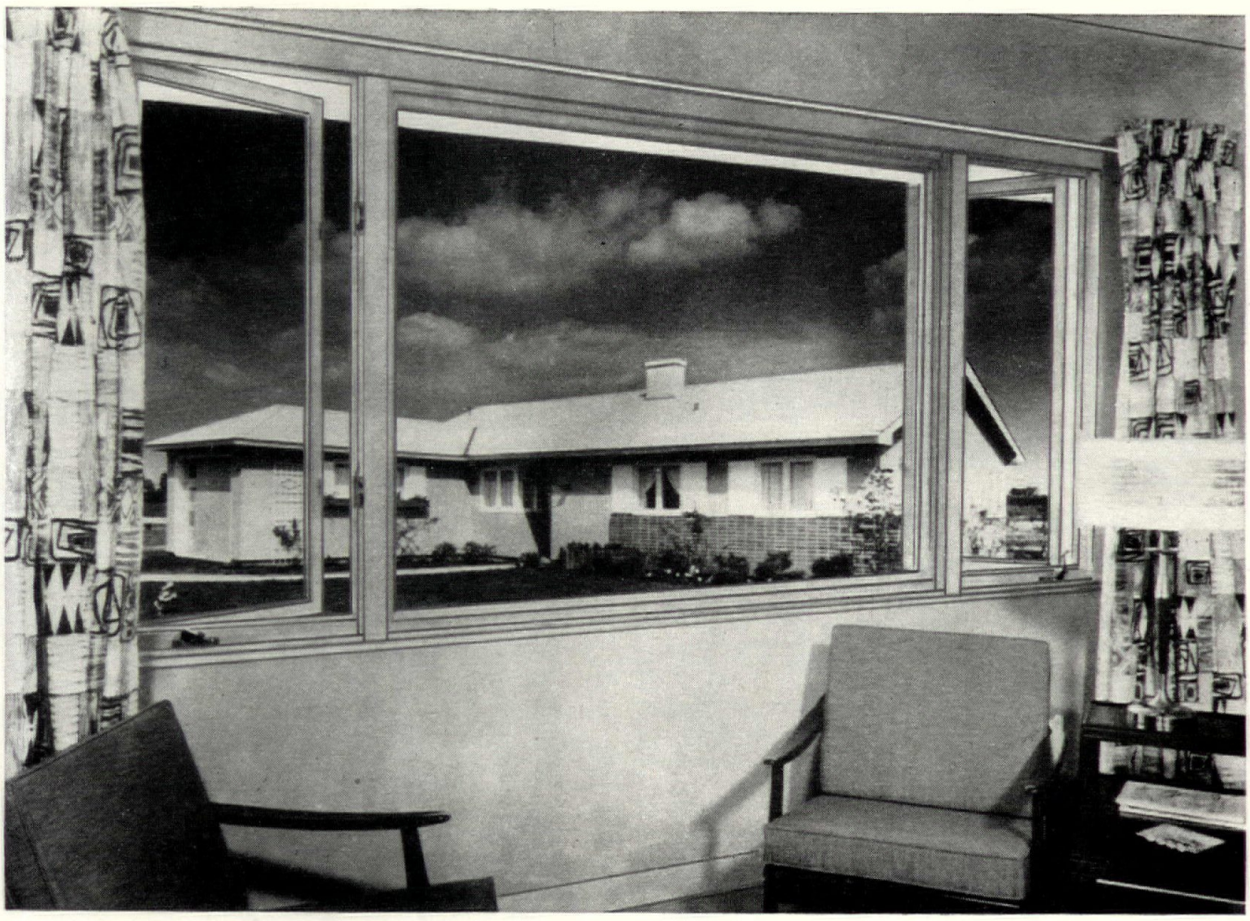
COMPLETELY WEATHERTIGHT

Two independent weatherstrip systems, a vinyl tubing on the inner jamb stop and a stainless steel strip around the four outside edges of the sash, make the BILT-WELL Casement the most weathertight window on the market today.

CONSUMER APPEAL: You add exclusive sales

The Harmonious Arrangement of
BILT-WELL ENGINEERED WOOD PRODUCTS
Adds to the Appearance and Efficiency of Every Home

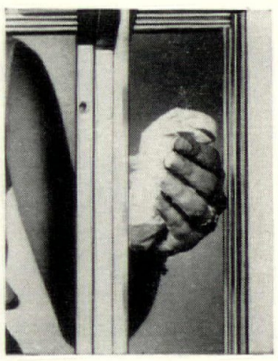
THE BILT-WELL LINE: **WINDOW UNITS,** Double-Hung, Awning, Casement, Basement, Storm and Screen. **CABINETS,** Kitchen, Multiple-Use, Wardrobe, Storage, Vanity-Lavatory and Vinyl Counter-tops. **DOORS,** Exterior, Interior, Screen and Combination.





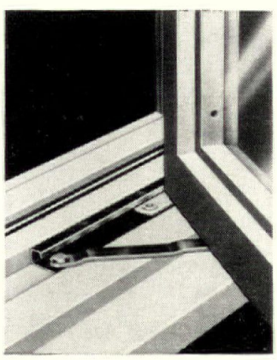
STORM PANELS—SCREENS

Companion storm panels and screens that snap into place easily and quickly from the inside take the drudgery out of seasonal changing. Both units are color-toned to harmonize with surrounding wood.



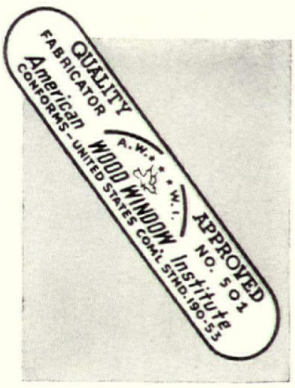
90 DEGREE OPENING

Unit opens to full 90 degrees for easy washing of both sides of glass from the inside and for maximum ventilation.



PROWLER PROOF

Precision engineered sliding type hinge, unique roller operator arm and trouble-free gear operator make opening and closing of the BILT-WELL Casement effortless.



FULLY GUARANTEED

The BILT-WELL Casement is guaranteed to meet the U. S. Department of Commerce Commercial Standard 205-56 and is completely water repellent preservative treated, conforming to N.W.M.A. Standards and bears the A.W.W.I. Seal of Approval.

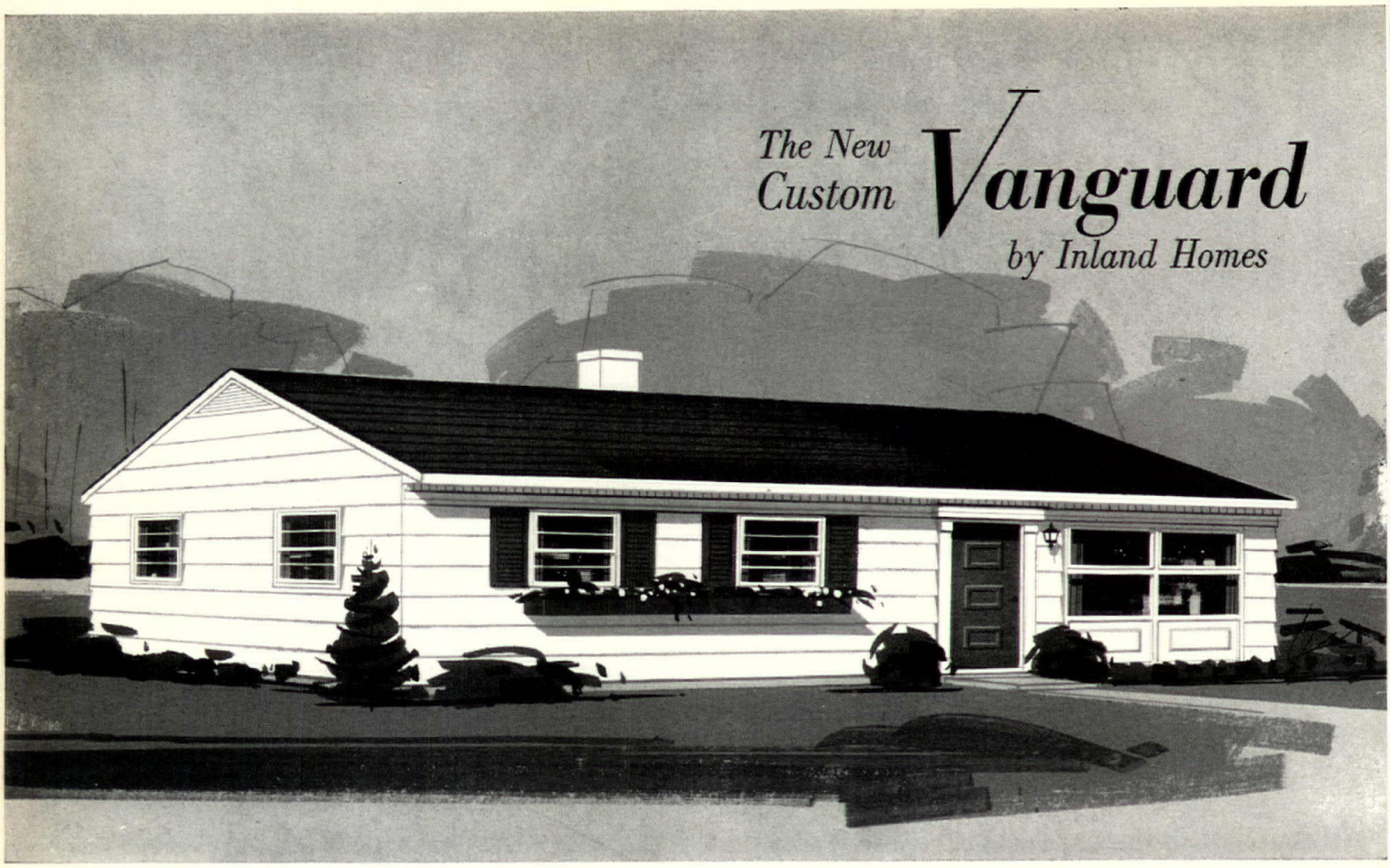
features to homes you design and supervise or build using the new BILT-WELL Casement

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Build Well with BILT-WELL WOOD WORK

For complete information on the New BILT-WELL Casement and other BILT-WELL Products see Sweet's Architectural 17c/Car and 24b/Car, or Sweet's Light Construction 5c/Car and 9a/Car.

CARR, ADAMS & COLLIER COMPANY
(since 1866) Dubuque, Iowa



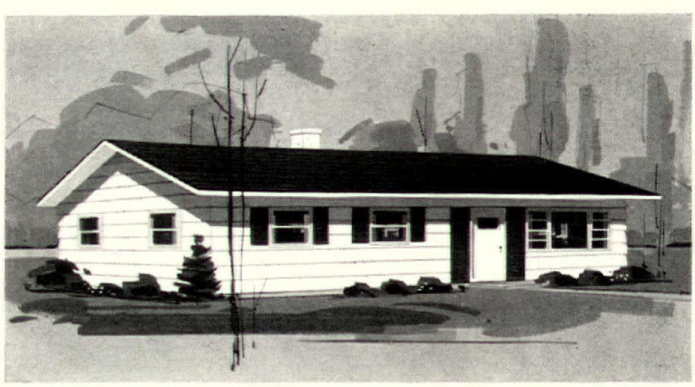
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Sell the full-value, full-profit Custom Vanguard for $10,000 complete with lot!

NO OTHER LOW COST HOME GIVES YOU ALL THESE CUSTOM VANGUARD SELLING FEATURES:

- ***Choice of 8*** Contemporary Ranch and Colonial designs.
- Natural finish flush ***birch doors throughout.***
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- Factory-applied double-coursed ***cedar shakes*** or horizontal siding.
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Makes term selling easy!



Visit, call or write P. R. Thompson, Vice President—Sales, Inland Homes Corporation, Piqua, Ohio (Phone: Prospect 3-7550).

Inland® Homes CORPORATION

Plants in Piqua, Ohio and Hanover, Pa.

continued from p 61

PEOPLE: Tim O'Leary, long a top salesman, is named new president of Ruberoid Co

Ruberoid Co, a major producer of asphalt and asbestos building materials, has picked its top salesman to be its new president and chief executive officer.

He is **E J (for Ernest Joseph) O'Leary,** 50, executive vice president since 1955. He succeeds **Stanley Woodward,** 71, who becomes vice chairman of the board.

Tim O'Leary has been with Ruberoid for 28 years, joining the company the same way as many of its executives—his previous employer was bought out by Ruberoid.

O'Leary was a salesman with Eternit Inc maker of asbestos products, when Ruberoid bought it in 1930. He rose through the sales staff in Mobile, Baltimore and Dallas, became general sales manager in the New York headquarters in 1950, vice president for sales in 1951.

Walter Daran



SALESMAN O'LEARY

"The life of a roof should be 20 years."

O'Leary hopes to continue Ruberoid's growth through acquisition. But he plans to diversify Ruberoid's product line with building materials other than asphalt or gypsum. (It got into gypsum products only four years ago by buying Ebsary Gypsum Co.) Reason: to reduce dependence upon roofing products, long subject to wide price fluctuation.

O'Leary admits Ruberoid is looking for other building materials firms to buy, but adds: "We are not interested in sick companies. We want only healthy firms. We have several under consideration."

Expansion would probably tie Ruberoid closer to home building, less to remodeling and repair, O'Leary says. He estimates 60% of the company's current output goes for fix-up, only 40% for new construction—the biggest part for homes.

Ruberoid, largest producer of asphalt roofing in the US, is in good position to expand. It has no long term debt, and a good earning record, though earnings are dipping this year because prices are down. Volume is actually up. Last year Ruberoid grossed $81 million, netted $4.8 million.

Salesman O'Leary hopes he can do more to sell builders on the quality roof—one which will last longer than the standard 15 years. "I think there's room for improvement in both the quality of materials and in application of roofing. The life of a roof should be at least 20 years or even more."

O'Leary, a pleasant but hard-sell salesman type, is an ardent sports fan—spectator as well as participant. He has a nine handicap at the Scarsdale Golf Club, plays gin rummy—but not the commuting suburbanite's favorite game of bridge. He likes to read mystery stories as well as trade journals.

Hollyday fund earmarked for Washington rehab job

When **Guy T O Hollyday** was ousted as FHA commissioner as the curtain raiser to FHA's windfall scandals of 1954, industry friends who were incensed at his dismissal arranged a testimonial dinner for him in Baltimore. Keynoted **Charles H Buck,** president of Maryland Title Guarantee Co—Title Man Hollyday's chief competitor: "What a shame it is that such a person should through no fault of his own, have been charged with the maladministration of FHA which occurred years before he took office." To show how they felt, Hollyday's friends from 34 states contributed $6,864 to a Guy T O Hollyday fund. The money was to finance a pilot rehabilitation house in a blighted neighborhood, rehabilitation being the now-neglected FHA program closest to Hollyday's heart.

Last month, a decaying neighborhood in Washington, DC became the ironic beneficiary of the $6,864. The Hollyday fund spent $3,500 to buy a vandalized, two-story brick house on 17th St NW, earmarked the balance to rehabilitate it into a neighborhood center for a do-it-yourself attack on blight. Said Hollyday, long since back at his old firm, Baltimore's Title Gurantee Co, as chairman: "I hope the house will have an educational value throughout the country."

Annabelle Heath promoted to new HHFA policy post

Annabelle Heath has been promoted again.

HHFAdministrator **Albert M Cole** has just boosted his onetime secretary another notch higher in the upper echelons of the housing agency.

Miss Heath remains an assistant HHFAdministrator (as she has been since Dec 23, 1955). But now she becomes head of a new Office of Program Policy which takes charge of work that has been headed by Asst Administrator **H Kingston Fleming** (Congressional and press liaison) and Acting Asst Administrator **Carter McFarland** (plans and programs). They have been bumped down to division chief rank. And Miss Heath gets a pay boost, from grade GS-16 (salary range: $14,190 to $15,150) to GS-17 ($15,375 to $16,335).



ADMINISTRATORS HEATH AND COLE

Same boss but a new job

Miss Heath, blue-eyed and 41 comes from Cole's home down in Kansas (Holton). She accompanied him to Washington as secretary when he went to Congress in 1945. Later, she became his assistant. When Cole was named HHFA boss in 1953, she went along as executive assistant.

Her best known work at HHFA was organizing the much touted Women's Congress on Housing two years ago. She has also been, since Cole first took over the housing job, the keeper of the royal gate, determining who sees the HHFA Administrator and who doesn't. In her new post, she is, among other things, to analyze the "manifold problems accompanying the rapid urbanization of the US [and] problems resulting from the changing pattern of urban life." So says the HHFA staff memorandum No. 134 setting up the office.

Bruce Kixmiller quits FHA to become housing consultant

Another of FHA's top administrative aides has resigned, the fourth to leave in the past year.

Bruce Kixmiller, special assistant for armed services housing since the job was created in 1955, has quit to become a housing consultant in Washington. At mid-month, a successor had not been named.

Kixmiller, 40, was a businessman in Vincennes, Ind when he was picked to direct FHA's part in the Capehart military housing program, set up by Congress in 1955 to replace the old Wherry Act program. He had headed a bus line, owned an auto agency and was an air conditioning distributor.

During his three years on the job, 283 projects involving nearly 90,000 units moved forward under the Capehart program: 61,637 units were completed or put under construction, 8,331 more were put under contract and 21,709 are to be bid by next June 30 when the Capehart Act expires.

Ex-FHA assistant named head of Senate housing staff

James B Cash Jr, staffer of the Senate housing subcommittee since January '55, moved up to staff director after **Jack Carter** quit to become vice president of Lee Development & Construction Co in Jackson, Ala (Sept. News). Cash is a former (1953) assistant to the assistant FHA commissioner for field operations. He was with FHA from 1939 to 1953.

LA bank picks new VP to help expand tract lending

Southern California's big Security First National Bank (assets $3 billion) is beefing up its residential mortgage lending. The bank has largely shunned FHA and VA tract loans in the post-war years.

Now, in what some builders interpret as a change in policy, the bank has picked one of the West Coast's brightest young mortgage bankers, **David Northridge,** and made him a vice president.

Northridge, 40, has been a vice president

continued on p 67

She's going to Washington to speak her mind!



The Second Annual

CONGRESS ON BETTER LIVING*

October 7-9, 1958—Shoreham Hotel, Washington, D. C.

She's one of 100 housewives, in 49 states from Florida to Alaska, who will take off for Washington, D. C., in early October to serve as delegates to the second Annual Congress on Better Living, sponsored by McCall's. There at this three-day Congress, she'll speak her mind—and the nation will listen.

Last fall's Congress on Better Living is still proving a valuable channel of communication between the woman and her family and the people who build, equip and furnish homes.

Among its accomplishments to date: It has given McCall's editors greater insight into what America's families want and need. It has helped manufacturers and retailers become better acquainted with their customers' tastes and desires. It has sparked one of the most dramatic, productive home-building programs ever to hit the American scene—the Congress on Better Living Home Certification Program.

At the Second Congress, a great many of the discussions about the home and its furnishings will be directed toward the future. Revealing their plans for buying new homes and remodeling their present houses, housewife-delegates—spokesmen for America's 43,500,000 families—will be concerned with the whole house, from lot-line to lot-line.

Special reports of the results of the Second Congress on Better Living will be made available to manufacturers and business executives— one more extension of the authority of the magazine that gives women what they want because it knows how they live.

**A trademark of McCall's Magazine*

McCall's

The magazine of Togetherness,
reaching more than 5,300,000 families

continued from p 65

of The Colwell Co, big Los Angeles mortgage banking firm, for the past two years. Before that, he started Institutional Mortgage Co for the Aldon Construction Co and headed it for four years. Brooklyn-born, he got into the field with the South Brooklyn Savings Bank, shifted to the Dollar Bank in '48.

Eldon Smith, chairman of the Security National's executive committee, points out that the bank recently merged with three small banks, Farmers and Merchants National of Los Angeles, Citizens National Trust and Savings of Riverside and Security Trust and Savings of San Diego thereby making it the sixth largest commercial bank in the US. All three had been active in interim lending.

Smith adds: "We contemplate this [more mortgage lending] as a very modest thing. We have to crawl before we can walk and we don't know at this early moment whether we'll even want to try to run. Just how large the program will be a year or two years from now no one knows."

Joseph R Jones, longtime vice president of the bank's mortgage department, will remain. "He will be responsible for relations with mortgage companies and for various legislative matters," says Smith. Jones is a former president (1944) of the savings and mortgage division of the American Bankers Assn.

Leonard J Czarniecki. 42, has been named director of the rehabilitation and conservation branch of the Urban Renewal Administration.

Czarniecki, a native of Detroit, made his mark there as the hustling executive secretary of the Detroit Committee for Neighborhood Conservation and Improved Housing. He holds a BS from Michigan State and a masters degree in public health from the University of Michigan.

He succeeds **Henry E Price** who resigned earlier this year to become administrator of rehabilitation and conservation in Cleveland.

INSTITUTES: **D V Petrone** of Typhoon Air Conditioning Co was elected president of the Air Conditioning and Refrigeration Institute succeeding **Lud Emde** of Temprite Products Corp; **Clark E McDonald** was named managing director of the Hardwood Plywood Institute, succeeding **Charles E Close,** who retired; **J Theodore Wolfe,** president of Baltimore Gas & Electric Co was nominated for president of American Gas Assn; **J L Singleton** of Allis-Chalmers Mfg Co was elected president of Natl Electrical Manufacturers Assn to fill the unexpired term of **W V O'Brien,** who died; **Loren F Dorman** quit as advertising manager of Weyerhaeuser Timber Co to handle Natl Lumber Manufacturers Assn's $1 million national wood promotion due to get under way this fall.

John Ihlder, pioneer Washington, DC slum fighter and public housing leader who died May 19 at 82 (June, News), left an estate of $72,100. For 18 years, Ihlder was executive director of the National Capital Housing Authority.

DIED: **Dean Glover,** 72, past president of the Los Angeles realty board, July 26 in Los Angeles; **Theodore C Fedders,** 64, retired president of Fedders Mfg Co, makers of air conditioning and heating equipment, Aug 18 in Buffalo; Builder **Joseph L Dunn,** Aug 30 in Kansas City; **Walter Rose,** 71, a past president (1936) of NAREB, Aug 31 in Athens, Ga.

LABOR:

Pre-glazed products get green light in Chicago as glaziers end opposition

Chicago's union glaziers have given up their fight to keep pre-glazed products out of their area.

Local 27 of the Painters, Decorators and Paperhangers has signed a consent decree, prepared by the Justice Dept, agreeing to stop practices which have discouraged or prevented use of pre-glazed windows on Chicago-area construction. Specifically the union agrees it will not:

- Restrict use or insist on re-glazing of pre-glazed products.
- Try to stop by picketing a building job where pre-glazed products are being installed.
- Require a builder to pay fees to avoid labor trouble if he uses pre-glazed windows.
- Conspire with glazing contractors to restrict or prevent use of pre-glazed products which are made by another union.

The complaint against the glaziers was filed by the Justice Dept antitrust division in March 1957. It was one of 25 actions in cases where companies and/or unions have allegedly tried to fix prices or restrict interstate commerce in ways which push up the cost of housing (Mar, News).

In the original complaint against the glaziers, the Hamilton Glass Co was co-defendant.* Hamilton and other unnamed glazing contractors were accused of exacting fees from builders, general contractors and manufacturers of pre-glazed products for the use of these products in the Chicago area.

Real effect of this practice, charged Justice, was to stop builders from using pre-glazed products.

Labor unions are normally immune from prosecution under anti-trust laws but in this case the government held that the union's activity placed it outside immunity.

Said Justice Anti-trust Chief Victor R Hansen, commenting on the consent decree: "It is clear that a union cannot combine and conspire with an employer where the effect is to impose an unreasonable restraint on interstate commerce."

The decision may have far-reaching effects. Because it is a federal case, federal attorneys throughout the US will be notified of the outcome via internal memoranda.

Restrictions such as practiced by Chicago glaziers are common in most union areas. So chances of the Chicago case benefitting builders elsewhere are good.

NAHB plans to urge its associations to suggest action against glaziers to their federal attorney if they face similar situations.

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* Hamilton Glass Co was dropped as a defendant when the consent decree was entered.

Cincinnati builders win 3-year fight against carpenters to save open shop

Cincinnati home builders have won an important decision in their fight to maintain an open shop.

The Ohio Court of Appeals has enjoined the local carpenters union from picketing several jobs it has been trying to organize for three years.

The fight between builders and union carpenters began in 1955 when the union picketed the project sites of the Triton Co. During the picketing one of Triton's model homes was blown up. Neither the cause nor who did it has ever been determined.

Amid the bad publicity which followed the bombing, the union shifted its organizational drive to Faxon Hills Construction Co. Picketing started in October 1956. Union men on the job refused to cross the picket lines. Faxon hired non-union help temporarily, later laid off all workmen and announced that he would use subcontractors for everything.

Picketing continued. So Faxon went into court for an injunction. The local common pleas court held the picketing unlawful. The carpenters appealed; the appeals court held it had no jurisdiction. Faxon appealed this finding to the Ohio Supreme Court which ruled only that the appeals court should take jurisdiction. The permanent injunction against picketing is the result.

Since the case began, Triton and Brune-Harpenau Builders have also obtained injunctions against picketing for organization.

Importance of the decision lies in the right—now affirmed—for an Ohio builder to use non-union men for his own work without affecting the work of his plumbing and electrical subcontractors who are invariably unionized.

Orville Brown, executive secretary of the Cincinnati HBA, calls the decision "a great victory," explains: "As a practical matter, our builders would rather use non-union labor because they are free of union dictation, are not tied up with jurisdictional disputes and, generally, get better production. For example there isn't the 15 to 20 minute clean-up period that union carpenters demand."

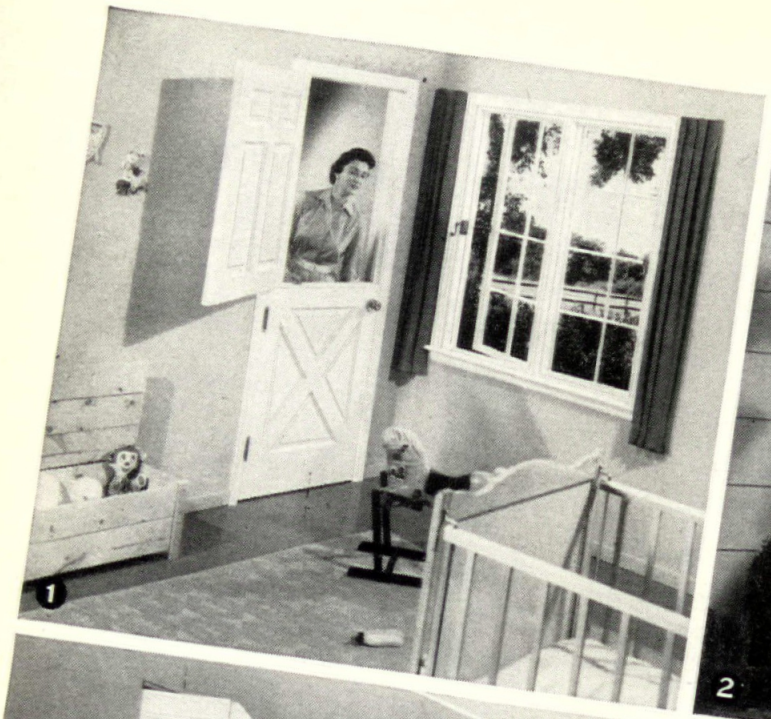
Closed shop crackdown postponed until Nov 1

Building trades and their employers have two months more to abandon closed shop practices and write them out of contracts.

The Natl Labor Relations Board announced in late August it would delay its deadline from Sept 1 to Nov 1 in cases where unions and management are making sincere efforts to get into line. It was the second extension.

NLRB General Counsel Jerome Fenton warned that the extension will not apply in cases where no effort has been made to end the closed shop. The Brown-Olds reimbursement remedy will be applied in such circumstances.

The Brown-Olds remedy requires parties in an illegal hiring agreement to repay all dues and assessments collected under the agreement for a six-month period prior to a finding of unfair labor practice.









Attention-getters for home buyers

"Add distinctive details to every room" is the sales-wise advice of today's most successful home builders. Here Curtis can provide considerable help because Curtis has the largest, most varied line of window and door styles—and mantels, corner cases, trims and other woodwork. All are distinctive...all bear the unmistakable stamp of Curtis craftsmanship and quality.

Curtis Woodwork is sold by leading lumber and building materials dealers in most parts of the country. See your Curtis dealer for today's best buy in woodwork!

CURTIS
WOODWORK *heart of the home*

1. Curtis dutch doors—bright feature for interior or exterior use. Curtis Silentite wood casements—weather-tight and trouble-free in operation.
2. With Curtis Silentite double-hung wood windows, quality expresses itself in better weather protection and finger-tip operating ease. Shutters are also Curtis-made.
3. Curtis folding louvre doors add an extra measure of decorative interest and utility. They are also made in flush door style.
4. Curtis Style-Trend sliding wood windows glide silently open for unrestricted ventilation...lift out easily for cleaning and painting.

Curtis Companies Service Bureau
200 Curtis Building, Clinton, Iowa HH-10-58

Please send literature on Curtis windows, doors and other Curtis Woodwork.

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Address.....

City.....*State*.....

about my homes with PHILCO *Citation* custom appliances!"

says **MAL GOGEL,** President, New York State Home Center, Syracuse, N. Y.

"The minute I saw Philco Citation appliances at the NAHB show, I knew they'd stir up a lot of excitement in our Monogram homes ($9,000-$15,000) and our Signature homes (up to $125,000). But I never really knew how hot Philco was until I started getting enthusiastic letters from prospects and buyers. Here are just some of the things they wrote about our Philco Citation kitchens. 'Most beautiful I've ever seen,' 'Out of this world,' 'Has everything else beat.' Selling's never been easier than with Philco Citation custom kitchen appliances!"



Builder Mal Gogel points out Citation Split-Level oven and surface unit with remote controls in one of his Signature homes. Only 40 years old, Mal has built over 3,700 homes . . . 340 of them in the Syracuse area since 1956. "I've seen all kinds of custom appliances" says Mal, "but nothing tops Philco's Citation line."

Big move to Philco Citation

From Syracuse to Sacramento, home builders everywhere are getting enthusiastic response to kitchens with Philco Citation appliances. Since their introduction at the NAHB convention, we have had to triple our production schedule to keep up with sales.

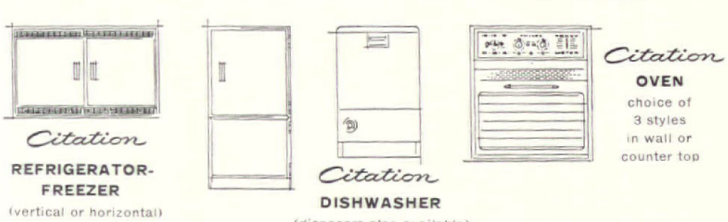
Why all the excitement? One look at Philco's new Split-Level double oven will give you some idea. But that's only part of the story. Philco gives you the same years-ahead sales appeal in three styles of wall ovens . . . four drop-in surface units (one with remote controls) . . . dishwashers and disposers. A full line, flexible enough to fit any color scheme, any floor plan, any type of installation—standard or custom-built!

Working with you start to finish

Philco Citation distributors bend over backwards to help you make more profits. Appliances will be warehoused until you need them. You'll get on-site, on-time deliveries. You can get expert factory help with your advertising, merchandising and publicity programs . . . as well as assistance in kitchen planning and layout.

Join the big switch to Philco Citation. Just send the coupon, and we'll put you in touch with your nearest Philco Citation distributor. Do it now!

A FULL LINE—PERFECT FOR ANY INSTALLATION



Citation
REFRIGERATOR-FREEZER
(vertical or horizontal)

Citation
DISHWASHER
(disposers also available)

Citation
OVEN
choice of 3 styles in wall or counter top

Philco's Citation custom kitchen appliances are built for easy installation in wood or metal cabinets, either made by national manufacturers or custom-built.

LOOK AHEAD . . . *and you'll choose* PHILCO®

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Show me how I can sell my homes faster and easier. Please have Philco Citation representative call. I understand there is no charge or obligation.

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*Name of firm*_____

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SHERWOOD GREEN Weldwood Samara V-Plank® paneling comes in 4′ x 8′ panels to make installation quick and easy. Nationally advertised in *Better Homes & Gardens, House Beautiful,* and *American Home.*



Cinnamon | Biscayne Blue | Coral Rose | Dove Grey | Candlelight | Provincial | Sun Tan | Nutmeg

New from Weldwood! Prefinished real wood paneling in 9 mellow colors

Genuine African Samara hardwood paneling combines the sales appeal of wood with the beauty of color. Only $45 retail, for a 12′ x 8′ wall.

Rich and varied grain patterns *only* real wood can offer. Now new Weldwood color-styled Samara® paneling comes in shades that let you build harmonious color *and* wood paneling into your homes in one operation.

Here is a new answer to what people want in the homes they buy. The texture, durability, and easy maintenance of prefinished real wood paneling, *plus* decorator colors. With Weldwood color-styled Samara paneling, your homes can offer new, *different* and exciting interiors that stand out from the crowd.

Weldwood's exclusive fine furniture finish makes a difference you—and your customers—can actually *feel.* Makes new color-styled Samara paneling easy—and *economical*—to install, too, because it requires no on-site finishing. And it's guaranteed for the life of the home.

See over 70 types and finishes of Weldwood paneling at your Weldwood lumber dealer's or any of our 114 branch showrooms. New York Showroom: 55 W. 44th St. In Canada: Weldwood Plywood, Ltd.

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55 W. 44th St., New York 36, N. Y.

Please send me HH 10-58

☐ "Weldwood Prefinished Paneling For Fine Interiors." Shows woods, installation photographs, specifications.

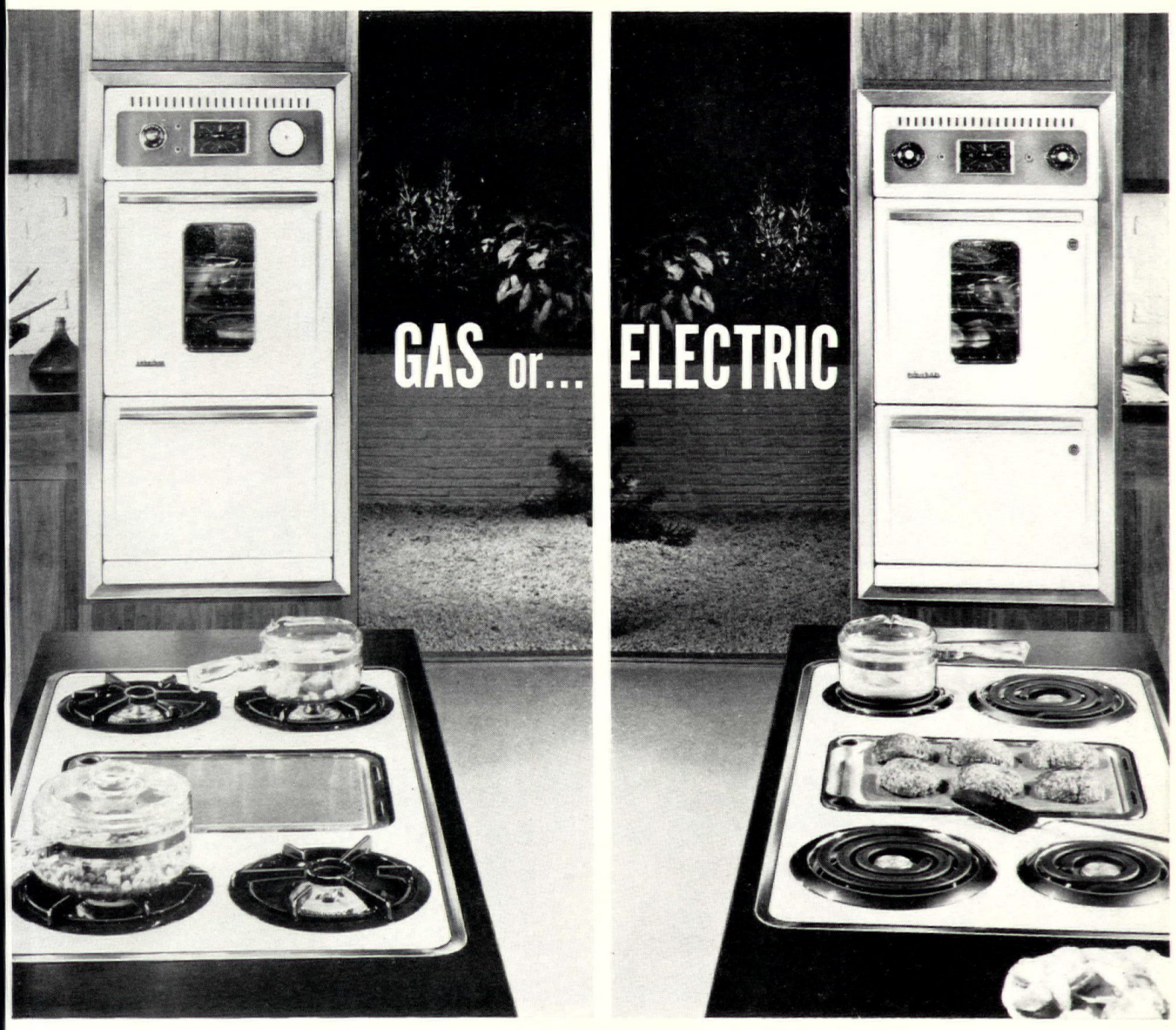
☐ "Family Rooms In Beautiful Weldwood—100 Interesting Ideas For The Room Your Family Lives In."

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NOW! you can offer either

at no extra cabinet cost!

Whether the prospect wants gas or electric, you can now give him whichever it takes to sell the house, with no change of cabinets. Same size opening is used for ovens and cook tops in either gas or electric of corresponding models. And, when you offer prospects the new Suburban, you're offering *the built-in range with all the features most women want*: . . . all the features Home Economists all over the country have said women want! Your prospects will see and want these features in the Suburban unit you put in your kitchens . . . just as they see them pictured in black and white and in full color ads in leading home magazines.

GET YOUR VALUE-PACKED PRICE FROM YOUR LOCAL DISTRIBUTOR—SEND COUPON TODAY!

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All dark
and handsome

Bruce
Fireside Plank
FLOOR

Naturally Beautiful

Furniture by Consider H. Willett, Inc. Photo by Hedrich-Blessing

A floor needn't be expensive to be different and attractive! This dramatically dark Bruce Fireside Plank costs little more than regular strip oak flooring, yet has added decorative appeal. The rich plank effect is created by alternating 2¼″ with 3¼″ widths and by wide, shallow side bevels. Bruce Fireside Plank is completely finished at the factory to eliminate the expense of on-the-job sanding and finishing. Write for color booklet. See our catalog in Sweet's Files.

E. L. BRUCE CO. BRUCE Memphis 1, Tenn.



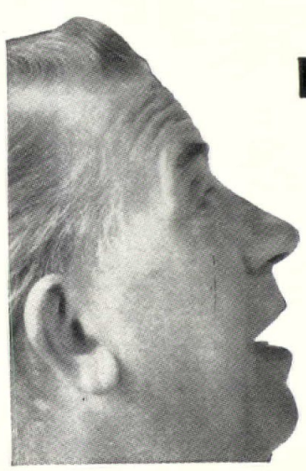
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Save money by installing Republic Steel Kitchens in a few hours, rather than putting in job-built wood cabinets that take two men up to a week to finish.

And that's not counting painting, or finishing—or losing a man for a day on callbacks to fix warped doors and sticky drawers!

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☐ Send my free copy of "Kitchens Sell Homes."
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"KEYCORNER LATH

makes LATH and PLASTER an even better buy"

says **A. BERNARD OLSON,** president,
The Olson Lathing Co., Chicago, Illinois

"Nobody questions the superiority of lath and plaster where greater fire resistance, lower maintenance costs and lasting beauty are concerned," declares A. Bernard Olson, one of the country's leading lathing contractors.

"Keycorner helps make lath and plaster even better. Our job experience proves what tests* show—that Keycorner almost doubles crack resistance over other corner reinforcements," he explains. "We know the Keycorner ability to fight cracks."

"And Keycorner is easier to use. The preformed 4-foot lengths fit into place with no effort at all. There's no time lost, no waste. The open mesh of Keycorner makes it easy to plaster over —assures full bond with plaster and a better job.

"Keycorner gives this extra protection, yet at a saving. That's why we use Keycorner exclusively!" Olson exclaims. "It lets us give greater satisfaction on every job."

**Tests with Keycorner, as well as other corner reinforcements, conducted by the Research Foundation, University of Toledo. Complete test reports FREE from Keystone Steel & Wire Company.*

KEYSTONE STEEL & WIRE COMPANY Peoria 7, Illinois

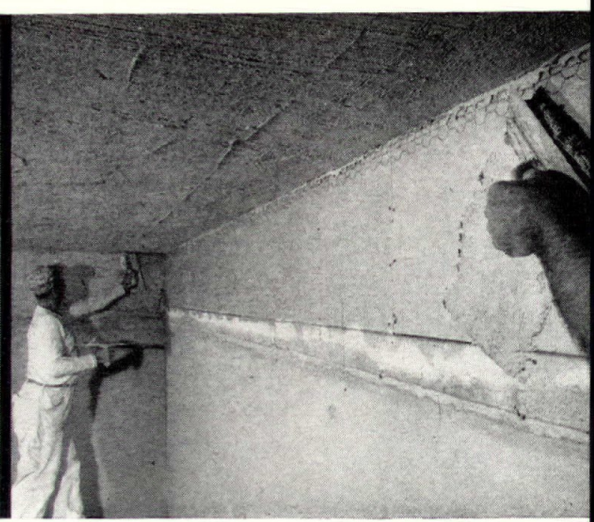
Keywall • Keycorner • Keybead® • Keydeck • Keymesh® • Welded Wire Fabric • Non-Climbable Fence



A typical quality Olson Lathing job goes into this 17-flat apartment building in Chicago. Many builders are switching back to lath and plaster because of the increased fire resistance, lower maintenance and permanent beauty that plaster walls provide.



Keycorner is simple to handle and use. This fact assures better workmanship, which adds still further to the superior job you get with Keycorner.



Keycorner gives a better plaster job. The open mesh assures full bond with plaster and gives the strong reinforcement that provides maximum crack resistance. Keycorner is also galvanized to prevent rust.



A. Bernard Olson uses Keycorner because it's part of "A better job at a lower price."

6,000 hours a year *you'll be glad you bought home heating from the expert who makes this pledge!*

All winter long you'll be free of costly call-backs or complaints—when you turn your heating problems over to your local Lennox Comfort Craftsman



Simple as 1-2-3. *Sensational Landmark* has three separate components—one for heating, one for cooling, one for air handling. The Comfort Craftsman selects each in just the right capacity for your home's needs—then assembles them as a complete unit.* *Trademark, Pat. Pending

The heating unit in every home you sell must—in the average climate—operate perfectly for 6,000 critical hours during every heating season. If anything "acts up" to cause drafts, discomforts, "cold spots," faulty heat distribution—remember, *you're the man* who'll be held responsible. Who'll have to answer the complaints... handle call-backs... lose time and money—and, even more serious, risk the loss of good will.

How to avoid these unpleasant and costly experiences? Call your LENNOX Comfort Craftsman, a man who's pledged to follow the strict creed reproduced on the opposite page. You have the assurance that he's thoroughly trained by Lennox engineers in expert planning, installing and servicing. That he is able to deliver all the comfort that Lennox equipment is built to provide. That he works directly with the factory to meet your most exacting needs, with the world's most complete line of heating and air conditioning equipment. You'll find his name in the Yellow Pages of your directory. Call him—and be sure to ask him for details on the new Lennox Merchandising Programs.

The Lennox Comfort Craftsman Creed

In consideration of being authorized to display the shield of The Lennox Comfort Craftsman I, the undersigned, am pledged to:

1. Carefully custom-engineer each Lennox heating or air conditioning installation;
2. Accurately calculate the heating or cooling load in order to correctly specify the proper capacity Lennox equipment;
3. Use the greatest skill at my command and my Lennox training in the installation and adjustment of Lennox heating and air conditioning equipment;
4. Apply my sincere best skill and Lennox standards in the service of such installations;
5. Increase my proficiency in heating and air conditioning technology through regular attendance at Lennox dealer schools;
6. Maintain a clean, orderly, attractive place of business;
7. Conduct myself and direct my employees so that at all times my operation is a credit to myself, to my community, and to Lennox;
8. Combine engineering skill, business integrity, sales aggressiveness and a spirit of service so as continuously to qualify for the title of LENNOX COMFORT CRAFTSMAN;
9. Relinquish my Comfort Craftsman identification whenever my operation fails to meet the exacting standards of the Lennox Comfort Craftsman Program.

LENNOX comfort craftsman

Firm Name _____



John W. Norris, engineer-president of Lennox, explains functioning of a gas-fired heating unit at Comfort Craftsman Training School.



A Lennox Comfort Craftsman must know how every item of Lennox equipment operates. The heat exchanger of an oil-fired stowaway furnace is explained in detail.



A classroom recess finds Lennox Comfort Craftsmen getting together with Lennox President Norris in a question-and-answer session.

LENNOX®

Want Merchandising Ideas?

Mail Coupon Today

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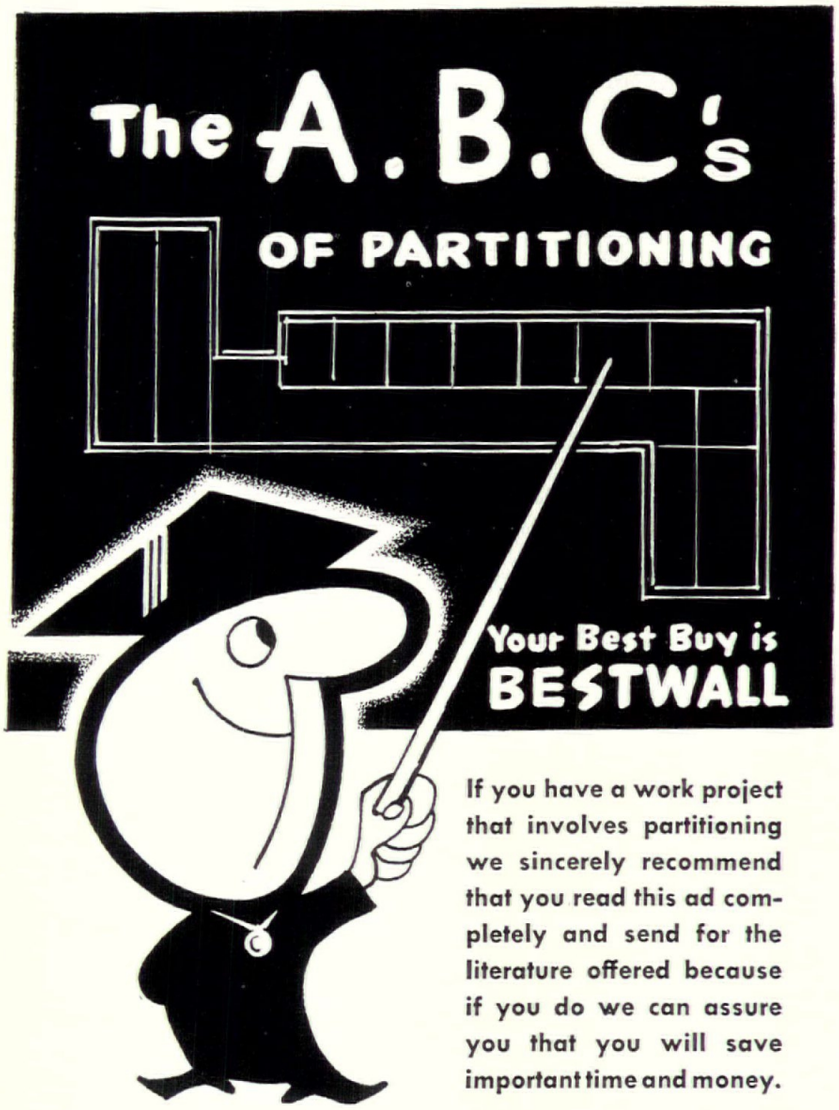
Send me complete information on Lennox Merchandising Programs

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If you have a work project that involves partitioning we sincerely recommend that you read this ad completely and send for the literature offered because if you do we can assure you that you will save important time and money.

Quite frankly, our headline "The A, B, C's of Partitioning" was an attempt to get your attention, *but* the fact of the matter is that there *is* a specific "A" modified, "B" modified and "C" Bestwall Hummer System that will give you the solution to any partition problem you might have.

The Bestwall Hummer Systems include one, two or three hour fire resistive non-load bearing partitions: a special, and extremely economical movable partition; factory laminated or field fabricated partition systems; smooth finish or panel effect partitions.

The Bestwall Hummer Systems of partitioning are *special*. They are a service of the Bestwall Gypsum Company designed to give Bestwall customers the finest quality partitions at the lowest possible cost. Space in this ad does not permit giving you all the facts. Therefore, we suggest that if you are going to build partitions you send for our new Hummer "C" System Brochure outlining the newest, best and most economical approach to partitioning.

Sold by Bestwall Certain-teed Sales Corp. offices in all principal cities.

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Gentlemen:

Please send me your new Hummer "C" System Brochure

Name.....
Company.....
Address.....
City.....Zone.....State.....

BESTWALL GYPSUM CO., ARDMORE, PA.

Letters

Rental Housing Round Table

The great need for new rental housing is for families displaced by slum clearance, urban renewal, rehabilitation and code enforcement. To meet that need, in addition to public housing, good units are needed above the public housing levels and below the prevailing high rents of $25 to $50 a room.

I cannot agree that FHA can make this possible by "a new attitude, a new helpfulness and a new understanding." Only profound changes in federal legislation can accomplish the required purpose.

Land must be written down (subsidized) for moderate rental units; community services must be provided; mortgage funds must be made available at longer terms than any now permitted and at half or less of the present interest rates. Any program short of this will not make rental housing work for the people who need it most.

How do we get this done? By reorienting redevelopment and renewal back to housing the ill-housed. By recognizing that the FHA guarantee of interest rates as high as those charged by conventional lenders is Socialism for the rich to serve those least in need of government help. By insisting that guarantee against loss requires a compensating reduction in the interest rate. By legislating now that the government will itself borrow and then lend directly to the consumer if private money lenders persist in their refusal to fix their prices realistically. And finally by permitting and requiring builders and promoters to build well and economically so that the cost of rental housing can be brought down.

Against the setting of such a policy, the HOUSE & HOME recommendations are generally good. As a substitute for such a policy, they are wishful thinking and inadequate to meet the real needs.

BEN FISCHER, *International Representative United Steelworkers of America Pittsburgh.*

Homes for Better Living Awards

I did not agree with the rest of the judges that none of the builder house entries were worth recognition (H&H, July).

On the contrary, I felt that at least one in each of two categories should have been given an award or at least honorable mention. However, I was unable to get any support at all from the other judges, who declared that the contest was for the purpose, as they understood it, of judging the architectural qualities of the homes.

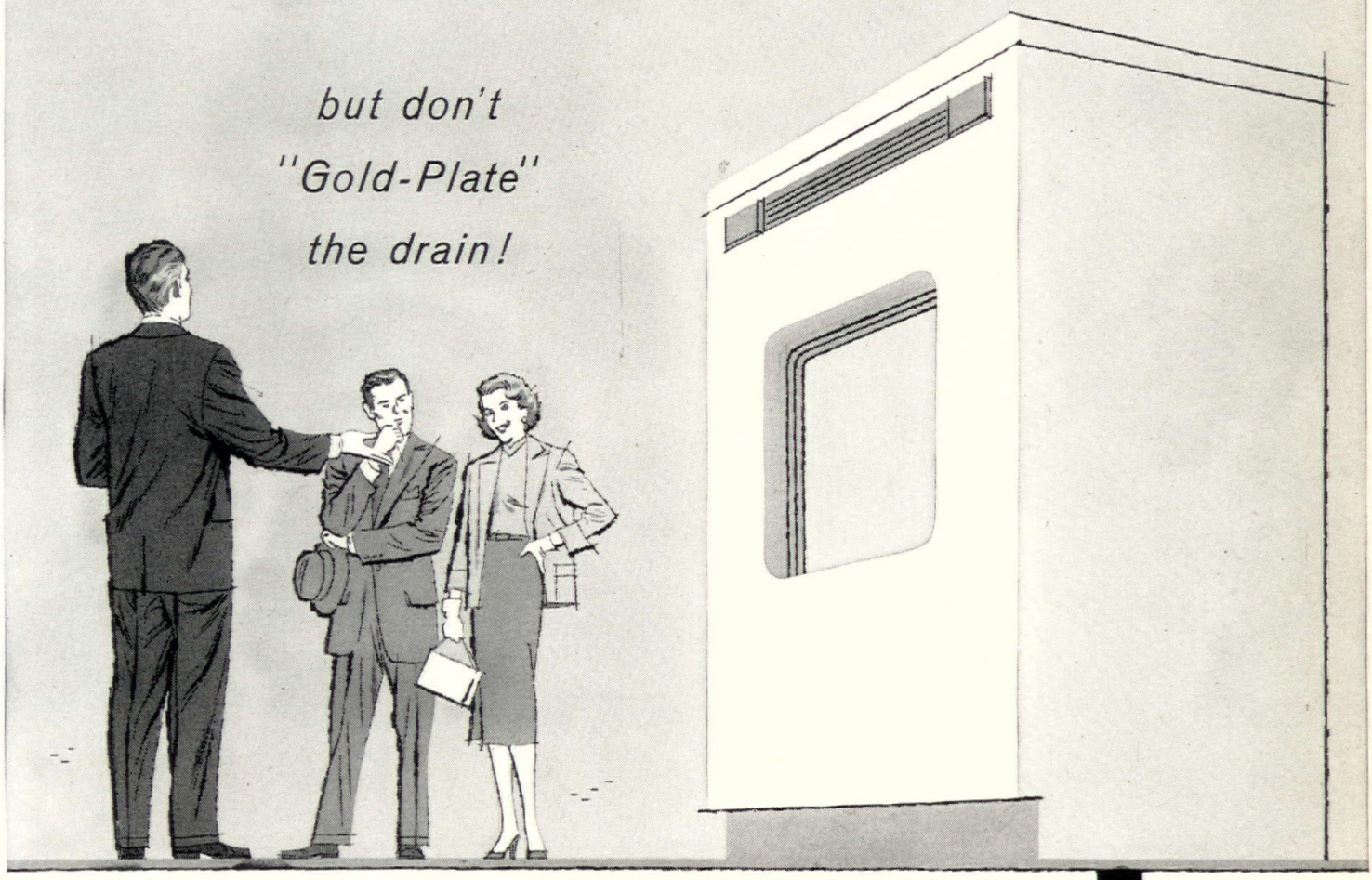
I pointed out a number of times that certain of the models were highly salable and were the type of home which the public likes, whether or not they met the standards of "architectural excellence" which the other judges felt compelled to enforce. In view of the otherwise unanimous opinion that architecture must be served instead of crass commercialism, I desisted in my dissent!

JOHN M DICKERMAN, *executive director* NAHB

continued on p 82

PUT YOUR MONEY IN ADDED CONVENIENCE...

but don't "Gold-Plate" the drain!



Specify Republic Steel Pipe for maximum economy in waste line service

Everything else being equal, the house with a full complement of modern conveniences is a sure-fire seller with today's home buyer. The problem is how to add conveniences without being priced out of the market.

Part of the answer, at least, is a matter of choosing fully dependable, yet economical, building materials. This is why, for waste lines, your best choice is Republic Steel Pipe.

First, steel pipe is lower in initial cost than other pipe materials. Moreover, its price and availability remain relatively stable, eliminating costly work stoppages and job estimate variations.

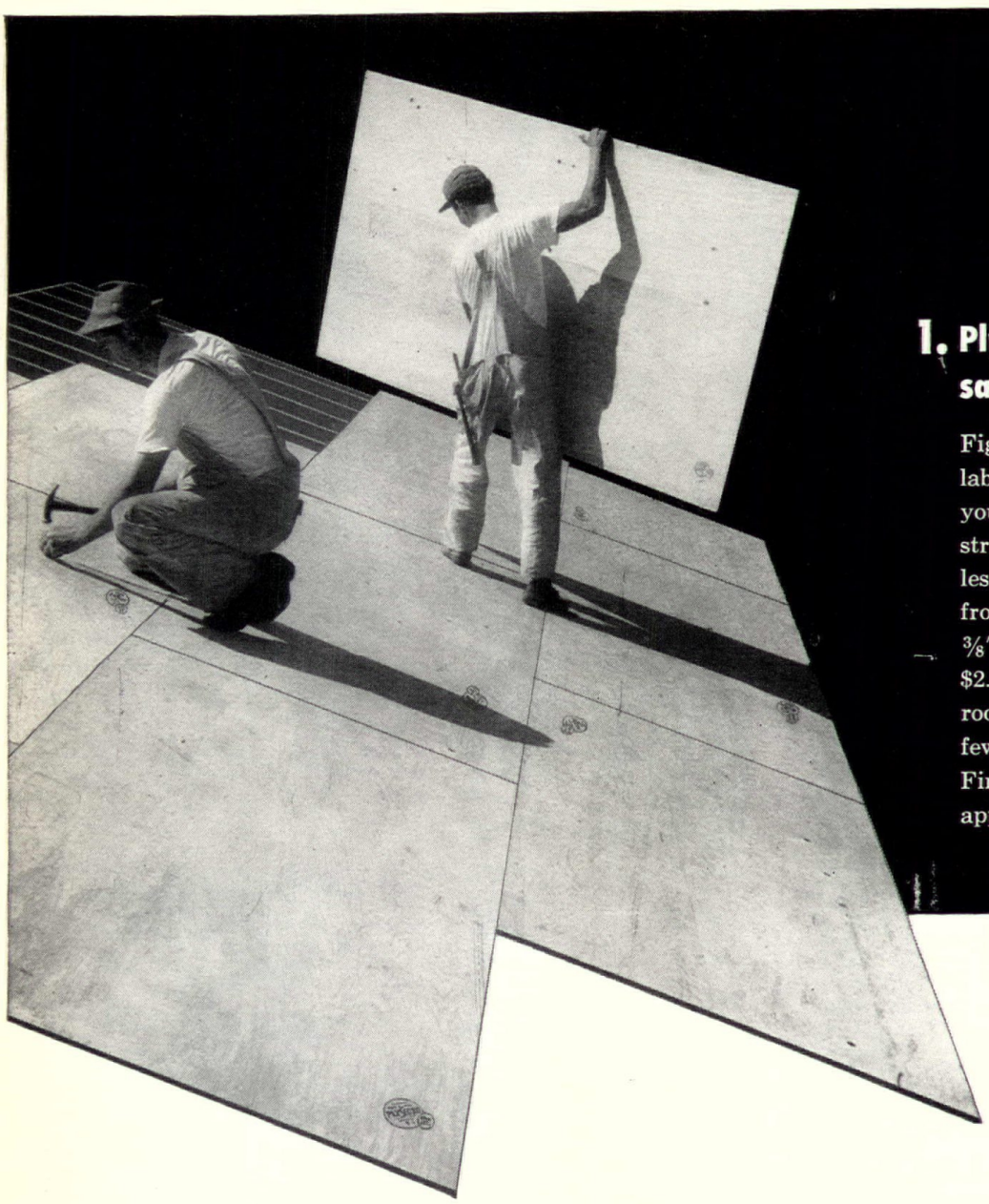
Next, since one grade of steel pipe meets all requirements, inventory can be reduced. And there is no problem caused by installing the wrong grade.

In addition, Republic Steel Pipe provides excellent workability. This, plus the reputable plumber's steel pipe know-how, assures low-cost waste line systems.

Result: when you install Republic Steel Pipe waste lines, you gain valuable dollars to help pay for sales-building conveniences. For complete details, contact your Republic Pipe Distributor, or write Republic Steel Corporation, Department HO-5369A, 1441 Republic Building, Cleveland 1, Ohio.

REPUBLIC STEEL

World's Widest Range of Standard Steels and Steel Products



1. PlyScord roof sheathing saves up to $2.00 per square

Figure *all* the costs—material, time, labor, waste and nails—and you'll find you can offer your prospects the plus structural advantages of PlyScord at less net cost to you. Exact savings vary from area to area, but builders report 3/8" panels over 24" rafter spacing save $2.00 and more per square. PlyScord roof decking goes down fast. Requires fewer nails. Stable, resists buckling. Finish roofing looks better, is easier to apply on firm, solid PlyScord decking.

For

at lower



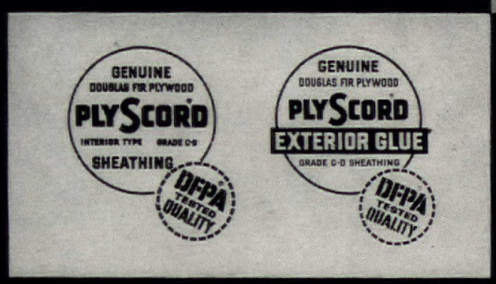
2. PlyScord wall sheathing saves 25% in labor costs

Large, light PlyScord panels save 25% and more in application time and costs. And because of its extra strength and rigidity (over twice as strong and rigid as diagonal lumber), you can omit conventional diagonal bracing. PlyScord's extra rigidity makes it ideal for shear walls in buildings with large glass areas, provides an added measure of protection in case of storm or earthquake.

FOR COMPLETE INFORMATION, specifications, design data, write for free "Plywood Construction Portfolio." (Offer good USA only.) Douglas Fir Plywood Assoc., Tacoma 2, Wash.

PlyScord, 3/8"-thick on 24" span, easily withstands 500 lb. concentrated load or uniform load of 30 lbs. per square foot. Construction meets FHA Minimum Property Requirements.





Two types of PlyScord are now available: Interior PlyScord (moisture-resistant glue) and PlyScord with Exterior (waterproof) glue line. Trademarks above identify panels produced under DFPA quality control program.



Tests on roof exposed two years show force of 85 lbs. required to pull cedar shingle from 5/16" PlyScord. In same tests, composition roofing was torn loose, leaving nails in plywood.

the best construction, in-place cost, specify PlyScord®

3. Use inexpensive PlyScord backing for tile, hardwood

Firm, solid PlyScord backing simplifies installation of finish wall and ceiling coverings such as tile, cork, thin paneling. Plywood's strength and stiffness makes them look better with no unsightly buckling. Easy to cut, fit and fasten, fir plywood grips nails firmly so they won't work loose to mar appearance of wall or ceiling coverings.



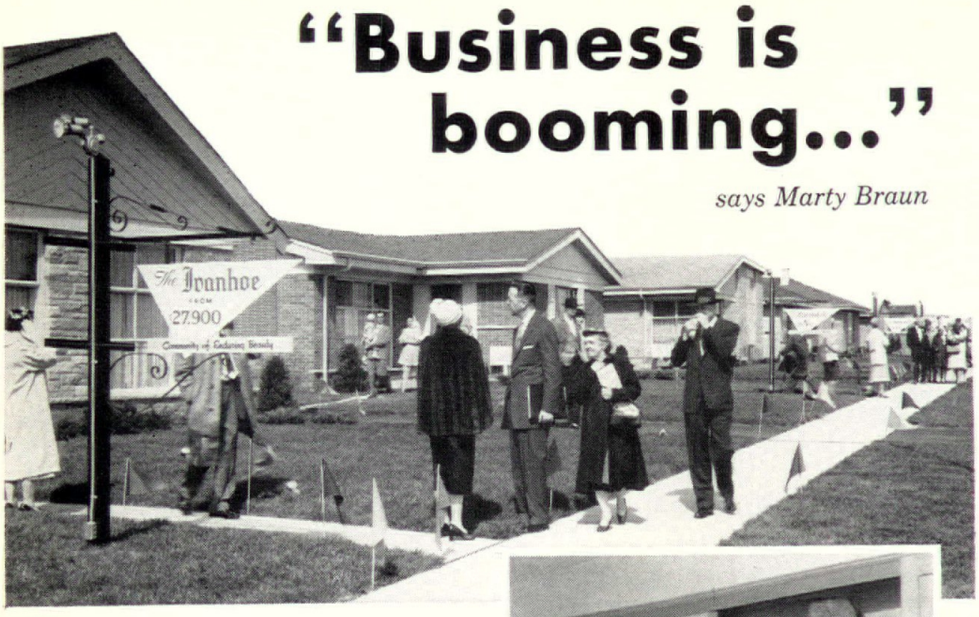
DFPA® TESTED QUALITY

Only panels bearing DFPA grade-trademarks are manufactured under the industry-wide Douglas Fir Plywood Association quality control program. Always look for the letters DFPA.

Fir Plywood

"Business is booming..."

says Marty Braun



"...because folks know we pay attention to details...such as using

X-PANDA* SHELVES

in our homes!"



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Martin H. Braun & Co., Westchester, Ill.

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- Choice of linen or greytone finishes

Letters

More on Motels

Congratulations on your "Motels" article (H&H, June). This was an excellent summary of motel development problems and represents a great deal of research.

Several of us on the staff at Michigan State University have been working in an educational way with motel and resort interests for the last 13 years. This work has included general research in areas of planning, construction, accounting and business management.

Your article places great emphasis on volume of traffic flow. This, we find, is of much less significance when compared to other factors, such as nearness to the community or general demand for new accommodations. We have some excellent examples in this state of motels with limited business (less than 100 days) with an annual average of 13,000 cars a day on the highway out front, as compared to 85% occupancy in a motel on a highway with less than 3,000 cars per day, annual average. Just having a great volume of cars going down a highway does not indicate that a large or small portion of this traffic is potential market for motel accommodations.

It might have been well for you to mention the dominant trend of motel-hotel types of operations appearing closer to the centers of our cities. I also feel that you might have devoted much more space than one paragraph to the importance of surveying the potential demand. While we know of no formulas for accomplishing this easily, it is one of the most important aspects of motel development. Before establishing a new motel, one certainly should make a complete survey of all existing accommodations, including motels, hotels and tourists' rooms. This should be qualitative as well as quantitative. For the best year-around operation, a rather complete study of the community's business and industry should be made with particular reference to the trends of the last few years. One should be alert to other factors within a community which might influence the demand for overnight accommodations, such as visitors to hospitals, educational institutions or government offices and those coming to conferences, conventions or specific events.

C A GUNN, *Extension Specialist*
Tourist and Resort Service
Michigan State University
East Lansing

Reader Gunn is the author of a very useful pamphlet, "Planning Better Motels," published by the Michigan State University, East Lansing, Mich. and identified as Circular R-302.—ED.

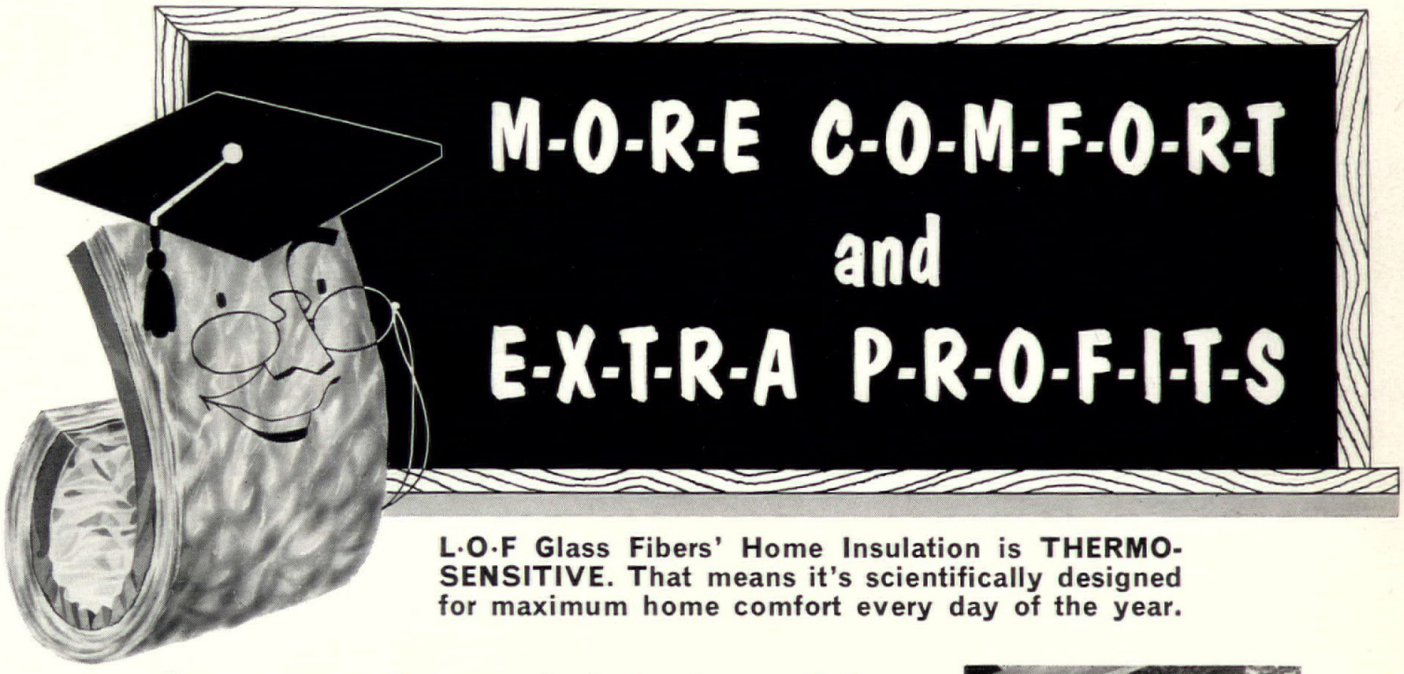
Codes and Trade Unions

While I believe there are substantial areas needing improvement in building codes, I resent the sensational way you represent the problem. The tenor of the whole article seems to indict the local governments for overly restrictive codes. If you grasp the bull by the horns you'll find that the horns are union horns, and that the greatest hue and cry for restrictive codes comes from trade unions.

THOMAS R KAAR, *building commissioner*
Village of Oak Lawn, Ill.

It's "Educated"!

L·O·F Glass Fibers' HOME INSULATION spells out TWO big benefits



L·O·F Glass Fibers' Home Insulation is THERMO-SENSITIVE. That means it's scientifically designed for maximum home comfort every day of the year.

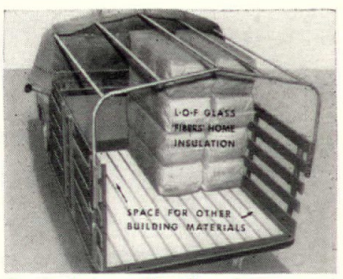
In warm weather, it curbs daytime heat until the sun goes down. After that, it speeds up home cooling at night by losing heat to the outside more quickly than ordinary insulations. This same sensitivity works more efficiently with air conditioning systems—reduces power bills. Even without mechanical cooling, this **Thermo-Sensitive** insulation improves home comfort all day long.

In cold weather, it responds faster to modern thermostatic controls. While "lazy" insulations lag behind, **L·O·F Glass Fibers' Home Insulation** smooths out the alternate *hots* and *colds* of room temperatures. And provides home buyers with major fuel savings that return the cost of the insulation many times over.

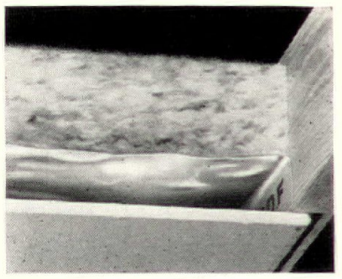
More and more home builders are finding that L·O·F Glass Fibers' Home Insulation is "Educated" to provide comfort features that not only help sell homes faster, but also offer extra profit possibilities through lower installation costs.



Save money on "one-man" installation. Lightweight blankets are self-supporting while handy tabs are stapled.



Costs less to handle. Compressed rolls take less than half the space of other types of insulation.



Easy-to-sell benefit for home buyer. Retains full thickness at edges. Snug fit cuts passage of heat.

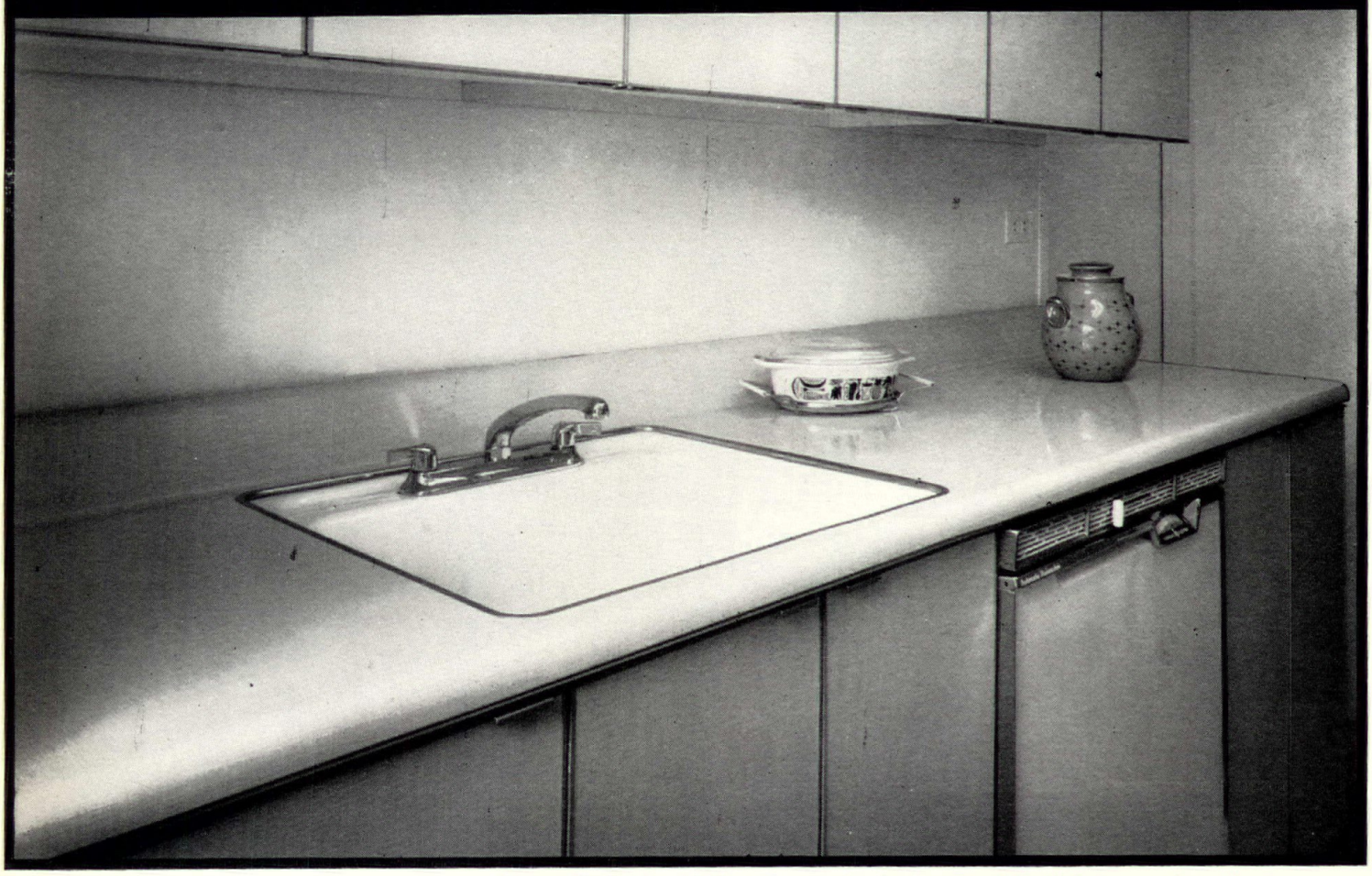
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Available in standard widths and three thicknesses to meet usual requirements, L·O·F Glass Fibers' Home Insulation is delivered quickly from warehouses all over the country. For the name of your nearest distributor, *write: L·O·F Glass Fibers Company, Dept. 21-108, 1810 Madison Ave., Toledo 1, O.*

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Textolite® Ideas



Courtesy United Metal Cabinet Corp.; national sales office, N.Y., N.Y.; factory, Pottsville, Penn.

Colorful General Electric Textolite® used as door facing on steel kitchen cabinets

United Metal Cabinet Corp., bonds Textolite to steel—provides extra-strong, easy-to-clean kitchen surfaces in luxury 19-story apartment building

Here's a *selling* idea that really works: these rugged steel cabinets, built by United Metal Cabinet Corp. of New York City, have bright, easy-to-install, Textolite surfacing on doors, end-panels, and counters.

Standard in every kitchen of this luxury apartment building, it's one of the most talked about features offered. Wives especially appreciate the practical advantages of Textolite: cleaning ease . . . scratch- and stain-resistance . . . years of fresh, fade-proof beauty for their kitchens.

Why not put General Electric Textolite to work for *you?* See the full line of patterns in Sweet's Light Construction File, Cat. 7e/Ge. For expert advice on specific applications, call your Textolite dealer (listed in the Yellow Pages under "Plastics"); or write to Laminated Products Department, Section HH-1058, General Electric Co., Coshocton, Ohio.



This 19-story penthouse and luxury apartment residence at 50 E. 79th St., N.Y.C., built by Fisher Brothers, features Textolite surfaced cabinets in every kitchen.

Textolite®
LAMINATED SURFACING
GENERAL ELECTRIC

OCTOBER 1958

House & Home

Published by TIME Incorporated

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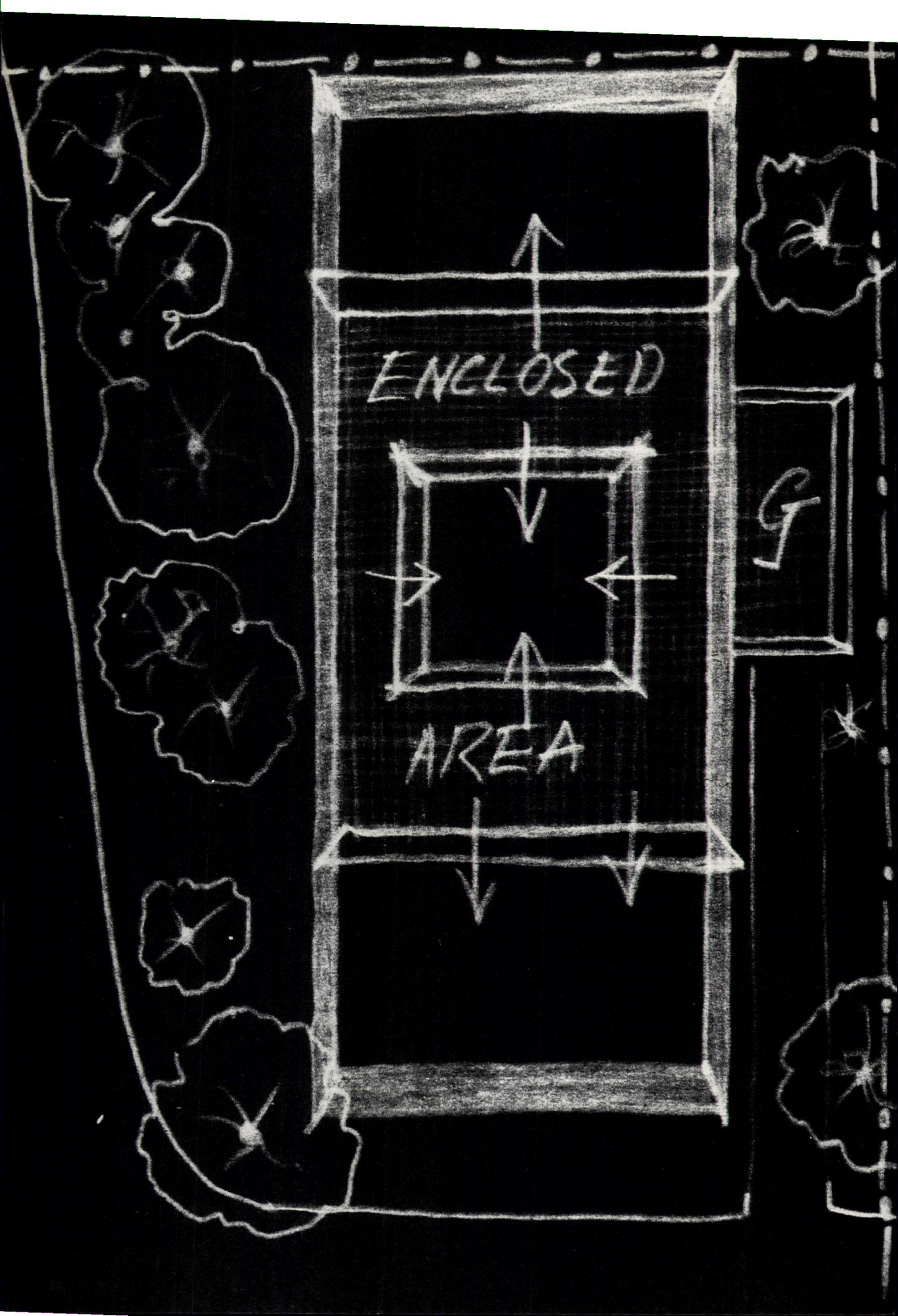
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Volume XIV, No. 4


ENCLOSED
AREA
G

Cloistered privacy on a busy street

The Dean of the School of Design at Harvard

reminds Americans

of a time-tested idea

"As close-in urban land becomes scarcer, more crowded, and more expensive, more and more attention should be paid to the concepts of the Mediterranean court house.

"The reasons," Dean Sert points out in an interview with HOUSE & HOME, "are simple. By pushing the enclosing walls out close to the lot line (see schematic drawing opposite) better use is made of expensive land. Both indoor and outdoor living space is private and serene. Every room can have pleasant views regardless of what is beyond the walls."

The patio town house concept, as pointed out in HOUSE & HOME, Oct '57, can be used for luxurious high-cost living or for pleasant low-cost living for as many as 30 families per acre.

These are some of the reasons why Dean Sert has used groups of patio town houses in his rehabilitation studies for Boston and Cambridge and for several South American cities. In the South American studies, Dean Sert—with Town Planning Associates—used tight clusters of patio houses integrated with small public squares and community buildings.

Though the patio town house has long been favored in Latin countries, and examples can be found on every continent, it is seldom used in the US. One reason is lack of public interest—probably because the US public has seldom had a chance to see and enjoy the patio town house. Also, the lower angle of the sun in North America makes orientation more difficult—without skillful design, patios can be sunless and dank and unpleasant.

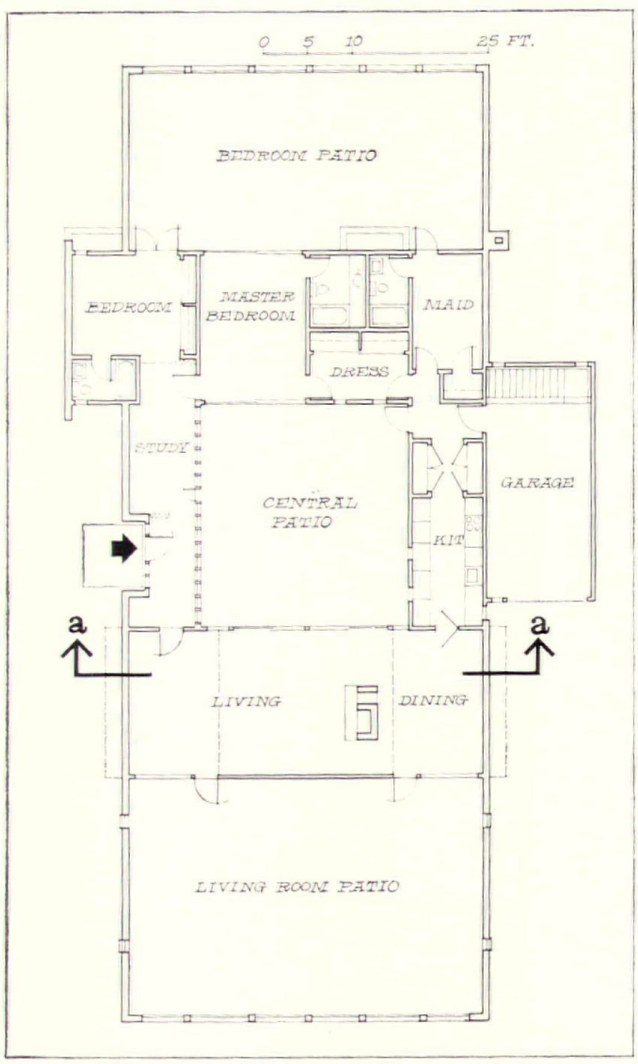
One advantage of the patio town house that is peculiarly important in US: you don't have to live with your car. The garage can be sited outside the walls enclosing the living space (see drawing opposite). No garden space is wasted to the driveway. And by tucking the garage back from the street, it need not be considered as a major design element of the facade.

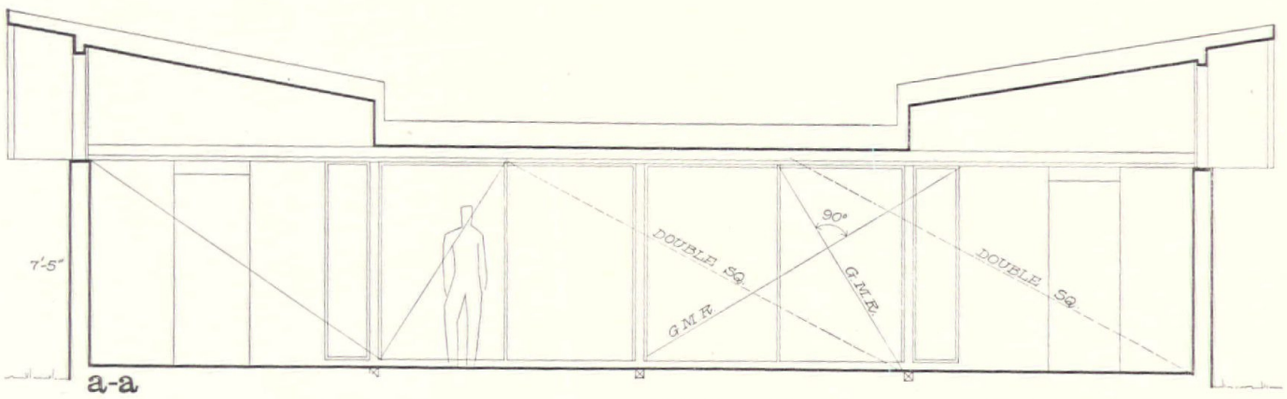
Dean Sert also points out that as long as the facade of a patio town house reasonably conforms with its neighborhood, the owner—within its enclosing walls—need not conform to the life or tastes or traditions of his neighbors. An example of an elegant town house is Dean Sert's own three-patio house in Cambridge, which is shown on the next six pages. It was designed for his own use, and is not intended as a prototype solution.



This patio town house looks inward. Its indoor and outdoor living spaces are totally enclosed. The facade is natural brick, broken only by the entry door (photo above) and two ventilating slots (photo below). The rear wall is also brick (both walls harmonize with the red brick indigenous to Cambridge). The end walls are lighter board panels. The living and sleeping areas, positioned within the enclosed space to form three patios (see plan, right) are connected by an entrance gallery and kitchen—there are no halls.





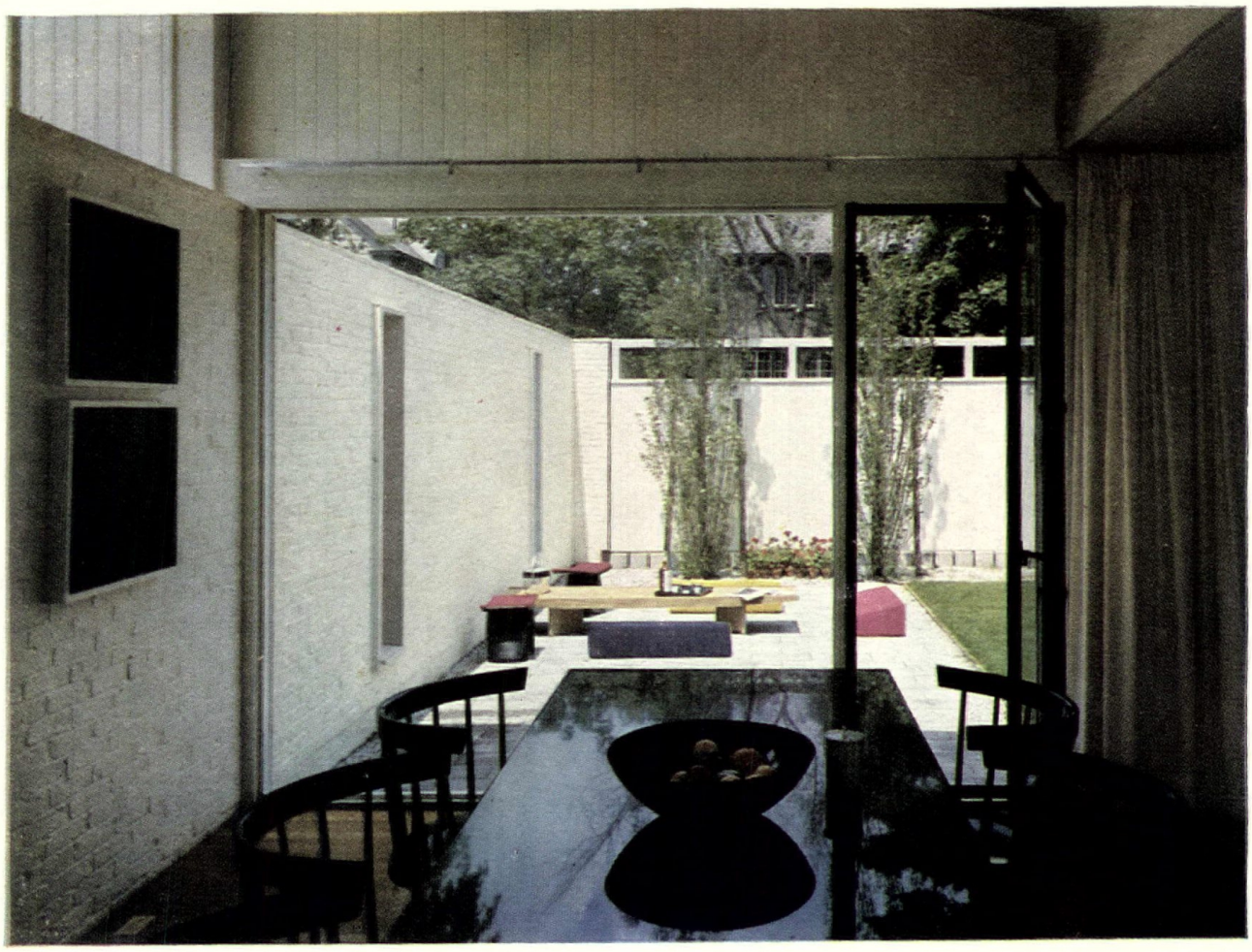


a-a

The house has been painstakingly proportioned. As section drawing shows, interior dimensions are based on human scale and on divisions of squares and the "Golden Mean Rectangle."

Even the trees in the patios (the living room patio is shown below) were selected and placed to tie the enclosed space to the street scene beyond, and to screen the patios from the upper windows of neighboring houses. Colored doors in wall slots open for ventilation, close for complete privacy.

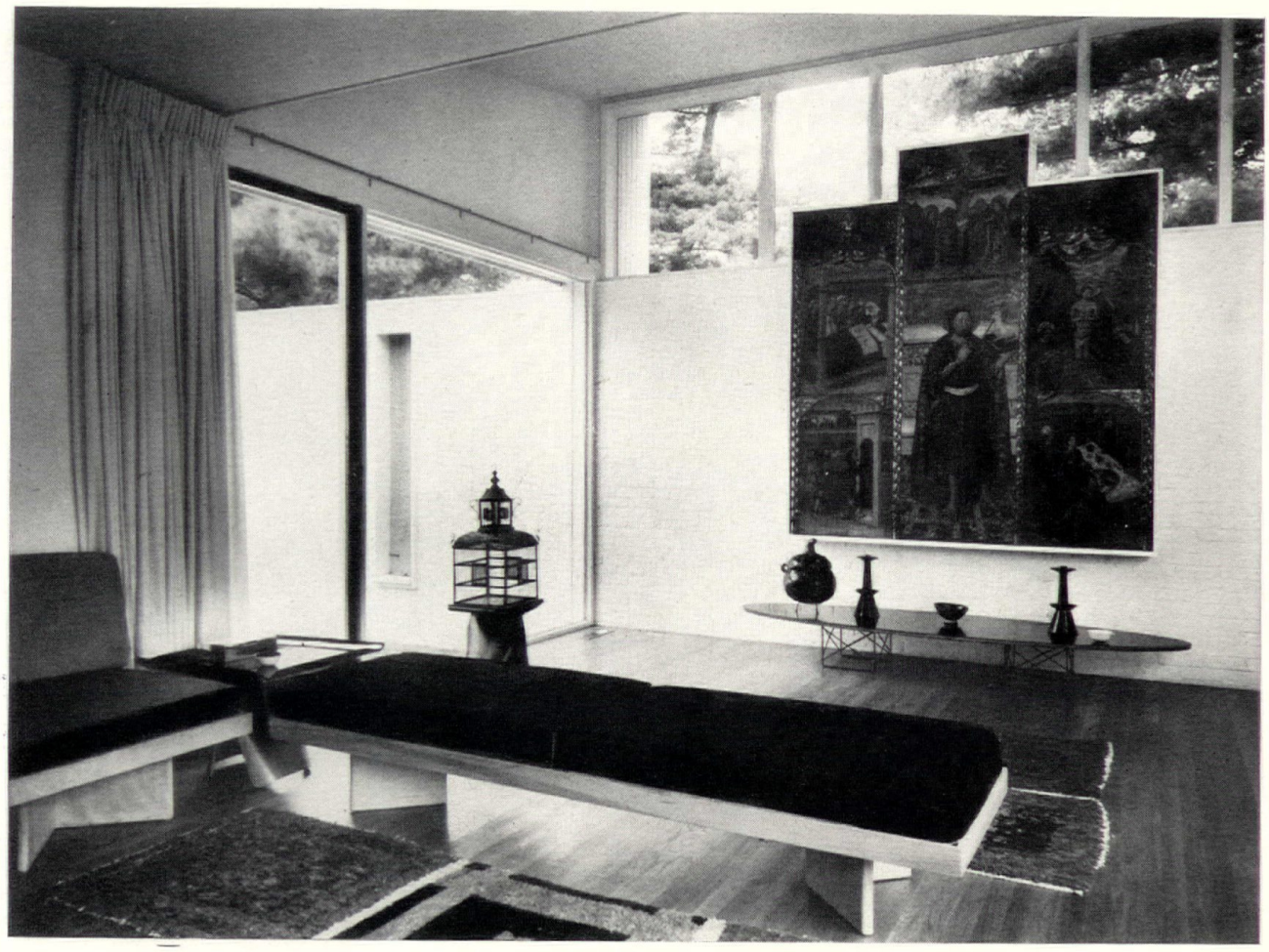






Indoor and outdoor spaces are intimately related and intimately scaled to each other (see photo above). Patios are big enough to add space and openness to rooms, small enough so they seem a part of the rooms instead of a separate element.

The photo above shows how Architect Sert let color and line and texture pass unbroken through the glass partitions, further integrating indoor and outdoor areas. Both photos show how he used big white surfaces as foils for lively color accents. Above, dining end of living room. Below, fireplace separating dining and living areas.



The living room ceiling sweeps up at each end (see above and section drawing, *p 89*). This treatment contrasts with the low, 7′-5″ ceiling in the rest of the house. And, since the brick wall reaches only the normal ceiling height, a clerestory is created which gives a glimpse—over the heads of passersby—of sky and fine old trees.

The view below shows the entrance gallery, looking from the bedroom end towards the living area (visible through door in far background). The central patio is beyond the glass-paneled wall at left.



House in Cambridge by José Luis Sert

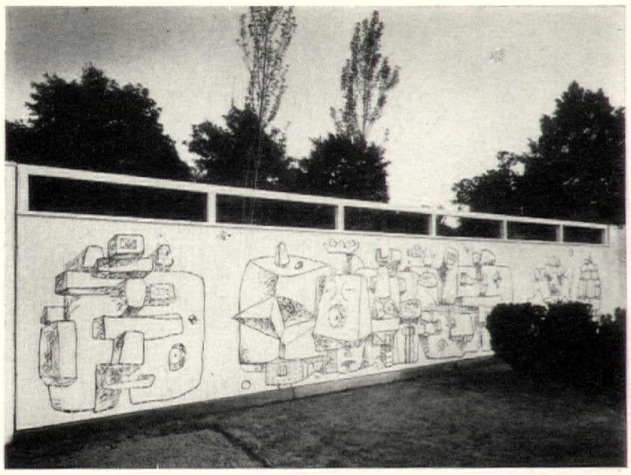


Because of the privacy provided by the solid walls enclosing the house, all rooms can be opened to views impossible in an ordinary house. The master bedroom (opposite) is open in two directions—to the central patio and, past it, the living area; and to the secluded bedroom patio (photo top right and see plan, *p 88*). This patio has a mural by Costantino Nivola. Either or both these views can be cut off by drawing curtains.

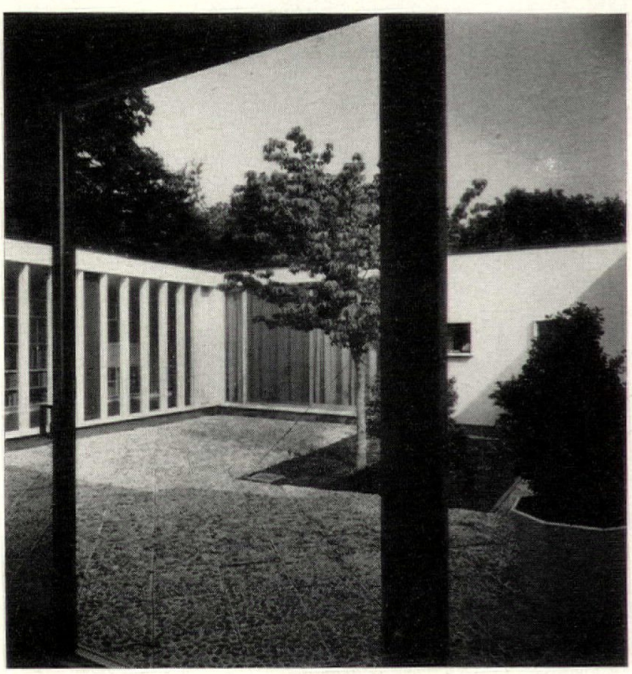
The view from the front door (center right) through the study and into the bedoom patio shows how the house affords long views along with privacy.

The central patio (lower right) is the visual hub of the house, and it works with every room. Its paving is 14″ square concrete blocks with a pebble surface. Like the other patios, it has little landscaping, instead borrows a view of treetops over the roof.

All the photos show the visual flow of one space into another and of indoors into outdoors that was the architect's prime objective. /END







Architect: José Luis Sert
General Contractor: Stanley Phalen
Location: Cambridge, Mass.
Photos: Louis Reens



This is West Coast Builder A L Branden

Yesterday he sold 23 houses like this...



Reported by Ed Birkner

here is how he builds and sells so fast

Alec Lee Branden systematizes every phase of building, offers good contemporary design at a mass-market price, and stages bigger sales spectaculars than any other builder in the US.

But Branden is no innovator. The ideas he uses are not new. Nor does any one stand out from all others. He gets results because he has adopted a high average of progressive ideas—all tightly integrated and geared for mass building and mass selling.

Just one month after he opened his Tropicana Village in San Jose, Calif, Branden—a 35-year-old ex-carpenter, ex-fruit trucker, and ex-general contractor—had sold out the first section: 823 houses*.

This was not his first big sales success. Though only in his sixth year in merchant building, he had already sold more than 7,500 homes in three subdivisions in the San Francisco Bay area. Tropicana Village, which opened in mid-July, is his latest and most ambitious project—it will have 10,000 VA-financed homes ($11,500 to $14,900) when finished.

Branden's greatest asset is his ability to cope with his major cost factors

He sees these factors as "the three L's of home building—land, lumber, and labor."

He reasons: "Land costs are skyrocketing, lumber costs are always fluctuating, and labor costs are on a steady upward spiral. By mass-producing homes, I can get a cost advantage. But I lose this advantage unless I get good value in land, peg my lumber costs at a fairly consistent figure, and offset increasing wages by making my labor more productive."

How does he get value in land? When he went shopping for the site of Tropicana Village, he passed up land close in to cities ("It costs too much"). He considered no location that involved parcels smaller than 600 lots ("Too many negotiations"). He sought locations near future freeway interchanges ("In California everyone travels by car"). He did his land hunting from an old car or an airplane ("That way, you're less apt to be noticed—as soon as people know a big buyer is interested, the price goes up"). And he cut his land-development costs by doing the work himself instead of subbing it out *(see p 96)*.

To hedge against fluctuating lumber costs, he makes mass purchases when demand—and hence price—is low. Then, to cut down waste, he funnels his lumber through a central yard *(p 98)*.

Here are some of the rules he follows to make his labor more productive:

1. Set up a realistic schedule for every step in your operation, and stick to it.
2. Plan your manpower, and see that your supervisors know how many men each job should take. Branden gives his supers "authorized manpower sheets."
3. Don't start more houses on one day than the number you finish the same day. Otherwise, you'll foul up your schedule and your manpower allotments.
4. Keep track of costs on each house. Branden insists on daily written reports from his field supers and subs ("We know right away when a house is off schedule and we're going to lose money on it").
5. Don't buy cheap materials. What you save in first cost, you often lose—and then some—on extra labor and callbacks.
6. Use machine power instead of manpower, and get your subs to do the same. Example: a drywall taper.
7. Pre-assemble and prefinish in a shop or construction yard to get the benefits of production-line output with power tools. In his construction yard, Branden assembles small, standard components, but he sticks to field construction of large parts like exterior walls. Reasons: cost of moving bulky panels from shop to field eats up pre-assembly savings; walls have only one outer skin (stucco), no sheathing to hold them rigid when moved.

Watch Branden's crews in action *(p 96-101)*, look at his models *(left and p 104)*, visit his sales show *(p 106)*—and you'll understand how he sold 23* houses yesterday.

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* Sales figure used in headline is based on Branden's average daily sales for the 45 days before HOUSE & HOME went to press.

Even before he starts building Branden saves $200 a house by doing his own earth moving

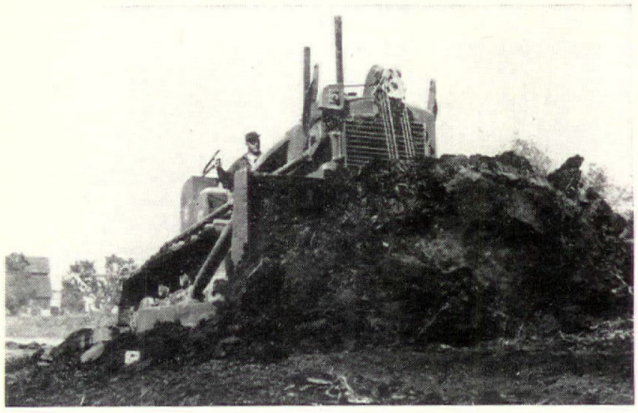
He grades his lots for 4¢ a sq ft less than he would have to pay a subcontractor. Here's why:

1. He eliminates one profit.
2. He has complete control of his earth-moving operation: "So I can move fast whenever I want to, thus avoid—or make up for—delays that cost money." For instance, if rain has held up his grading and he wants to schedule overtime to take advantage of a dry spell, he does it: "I don't have to go through a lot of red tape to wangle action from a sub."

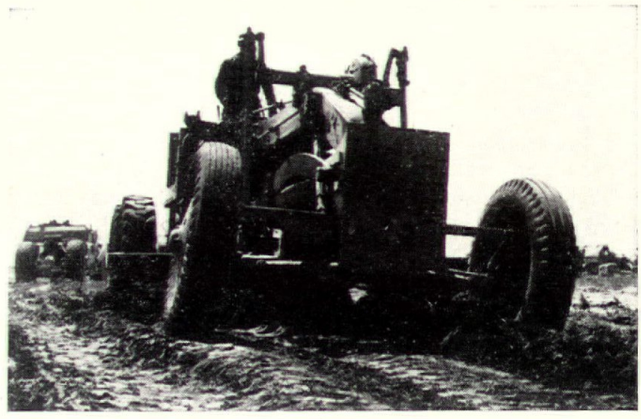
Branden owns $750,000 worth of earth-moving equipment, uses it nine months of the year and from dawn to dusk (see photo at right) when the weather is favorable. Like other large capital-goods owners, he gets a tax break, too—can depreciate his equipment costs in five years.



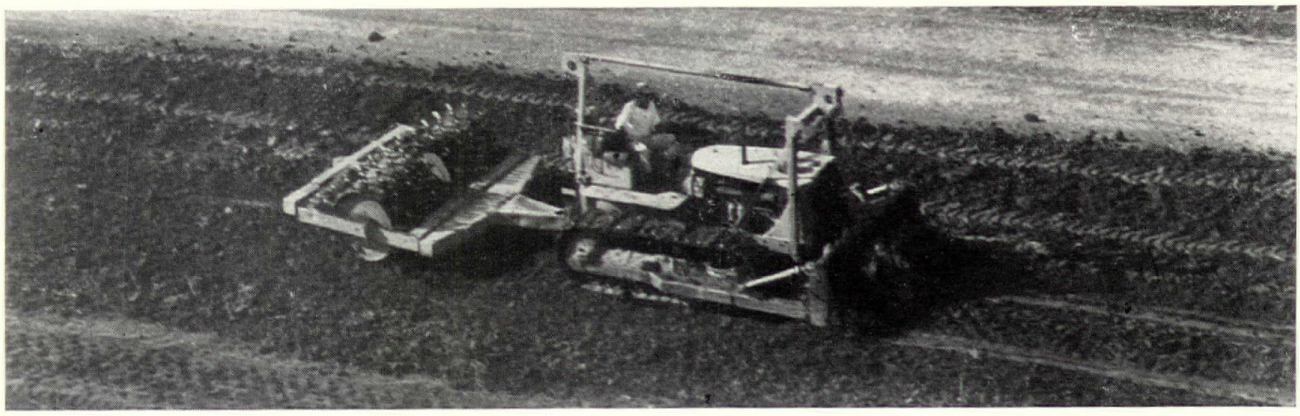
FROM DAWN TO DUSK Branden crew, using machines like these big



LARGE MOUNDS ARE LEVELED with tracked dozer, also often used to push rubber-tired prime movers on soggy terrain that gives poor traction. Branden picks biggest machines available for most work, says smaller machines cost more because they can't handle as many jobs.



STREETS ARE GRADED for sewer lines by motor grader. Blade is tilted to make gutter cuts. Although grader moves less earth than scrapers, it is versatile enough for use on later jobs like grading road beds, spreading rock, and—in a pinch—grading between houses.



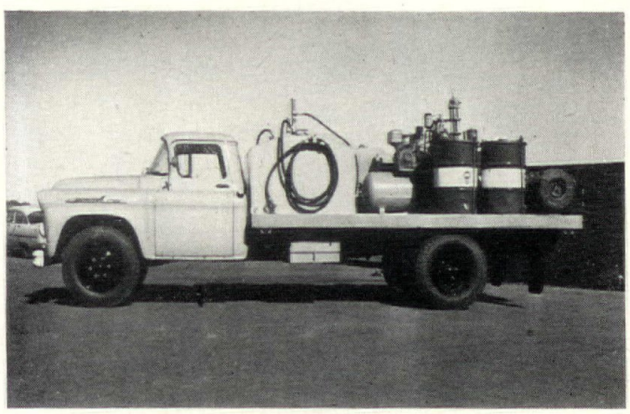
EARTH PADS FOR HOUSE SLABS ARE PACKED DOWN with sheepsfoot tamper, which squeezes out air voids that cause moisture and slab settlement problems. Branden reduces his earth-moving job by cutting streets to partial depth, then using fill from the cuts to bring his lots up to grade. A Branden rule: "Never pile up fill—spread it as soon as you move it, and keep your lots level. That way, you avoid double handling of fill and prevent poor drainage that makes the site soggy and difficult to work on."



scrapers (10 cu yds at a scoop), takes all possible advantage of clear, dry days. Says the grading superintendent: "We race the weather."



LOT ELEVATIONS ARE BUILT UP with fill hauled by scrapers. Grade stakes show scrapers where to dump. Grading superintendent stresses speedy turn-around time with machines, says: "We can load a scraper in three seconds and move up to 18 cu yds of earth in three minutes."



IDLE TIME IS CUT by using service truck to gas and grease equipment in field. Truck eliminates frequent shunting of equipment to and from service shop, thus saves $1,500 a year in manhours alone. It cost $8,700, can service all of Branden's earth-moving machines in two hours.



EQUIPMENT POOL includes street rollers and big (3,000 gal) water-tank trucks as well as scrapers, graders, and dozers. Branden also has a fleet of 14 pick-up trucks: "They keep our supervisory people mobile, which means money savings through better supervision."

continued



CONSTRUCTION YARD is key point on supply line. Materials received here are processed and broken down into quantities for each house.

Branden buys pre-cut lumber and controls his own supply line from stockpile to site delivery

Most of Branden's materials pass through his construction yard—the partly open warehouse and pre-assembly plant above. There, they are checked for quality, allotted in exact quantities for each house, and moved out to the field by trains of trailers (lower right, facing page).

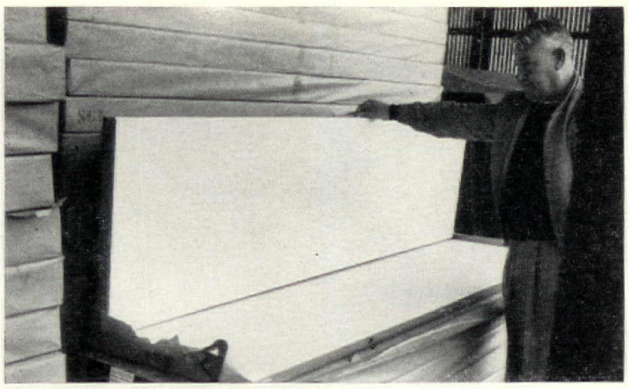
To stabilize his materials costs, Branden mass-buys from lumber dealers when he thinks prices are most favorable—buys some lumber as much as a year before using it.

To stabilize labor costs, he buys precut lumber (studs, for instance), also pre-assembles and prefinishes components that can be built and finished more efficiently off the site.

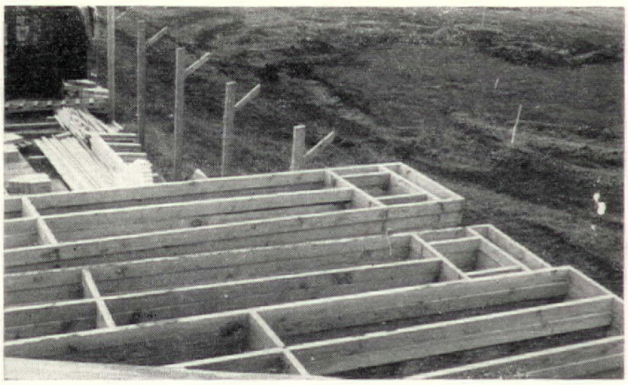




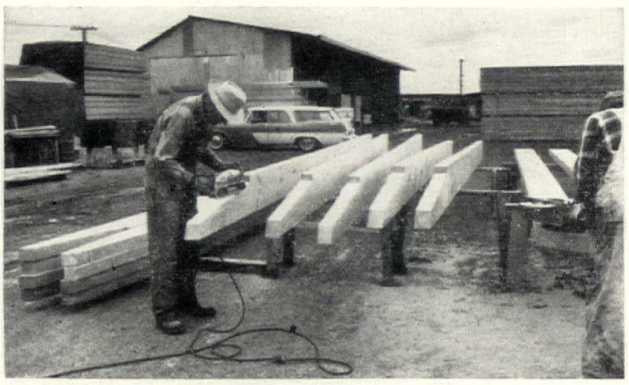
PRECUT LUMBER (left) and laminated beams (above) are stockpiled in Branden's yard. Lumber is banded and palletized for easy handling by fork lift. Laminated beams (used for exposed ridge beams in most models) are delivered and stored in protective wrapping.



UNDERSIDE OF ROOF DECKING forms finished ceiling. This t&g decking, used in most Branden houses, is one of his favorite products: "You can put it up, and you're finished with it—no taping, no painting, no waiting." Decking is wrapped for delivery and storage.



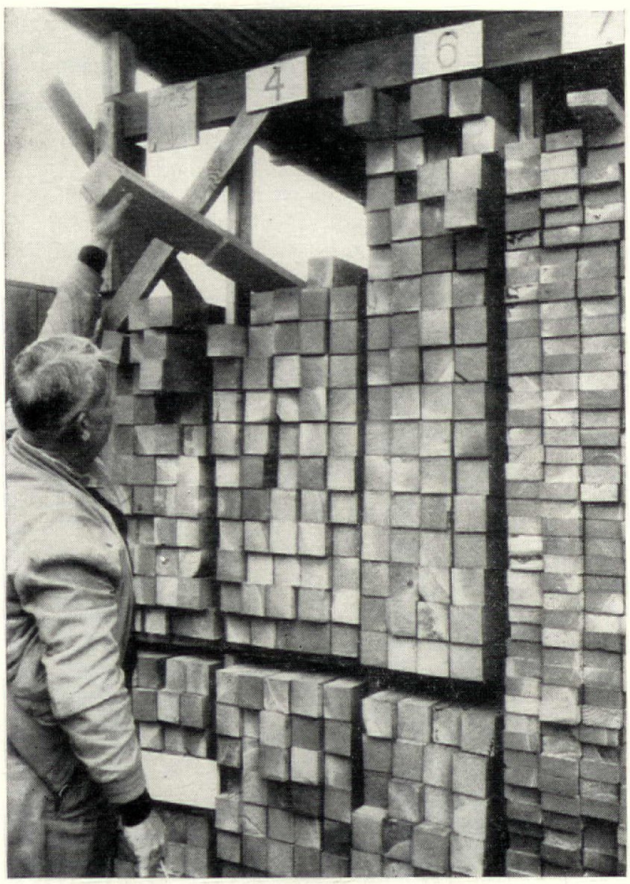
PREBUILT CEILING PANELS for bedroom corridors are stacked in construction yard after assembly. "This", says Branden, "is the kind of component that's easier to handle with less waste when all the little pieces are nailed together in advance."



RIDGE-BEAM OUTRIGGERS are shaped with power saw at right, smoothsanded at left. These are unlaminated garage beams. Outriggers of laminated ridge beams for houses are also shaped. Architect detailed shaping simply to make exposed beams more interesting looking.



TWO-MAN PAINTING TEAM prime-coats tops and bottoms of rafters stacked six-high to save time and paint (union prohibits spray equipment). For prime-coating sides, rafters are laid close together side by side. Finish coat is applied in field.



NUMBERED BINS are used to stockpile specially cut and notched pieces. Numbers guide the teamster (required by the union), who selects and loads lumber and is unfamiliar with dimensions. Says one building supervisor: "We like to do everything by the numbers."



TRAIN OF TRAILERS, towed by truck, takes day's supply of lumber from yard to field. Flat-bed trailers carry framing and siding. Covered trailers, in background, carry trim. Trim trailers are left at site, reloaded with unused trim at day's end to avoid waste of costly material.

continued



TWO WEEK SPAN, shown by aerial photo, will take the bare slabs in background to the stage of closed-in houses seen in the foreground.

From slab to closed in roof, Branden does the big jobs himself - subs out what he can't do cheaper

The big jobs are the carpentry jobs shown at right. They are handled by Branden's crews because:

1. Direct control of carpentry gives him direct control of his whole building operation: "Everything else dovetails into the frame."

2. Carpentry is his specialty: "We think we can work with wood faster, better, and cheaper than anyone else."

"But," says Branden, "if you try to do it all yourself, your job will get away from you." So he subs out such work as plumbing, wiring, painting, stuccoing, and fencing.

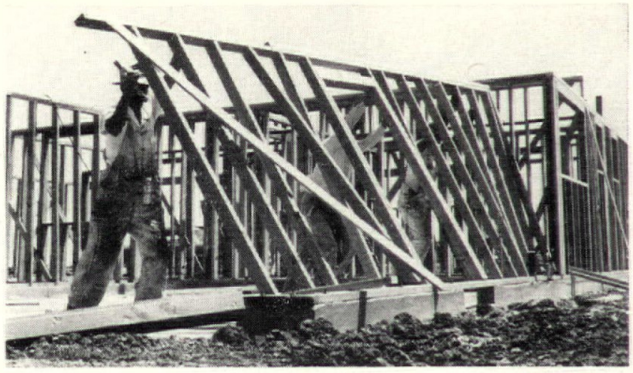




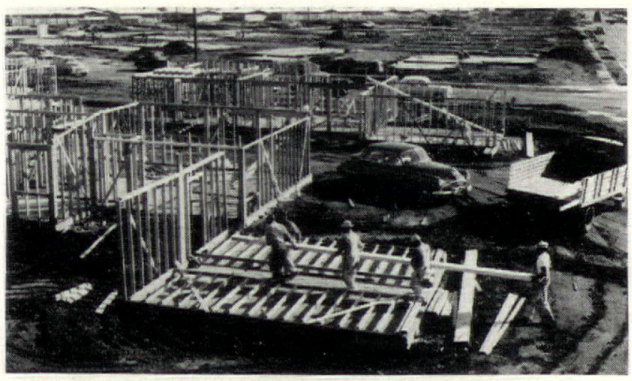
PREFAB PLUMBING TREE (left) and precut lumber (above), stacked handily on slab, save time at site. Plumbing tree, installed by subcontractor before slab is laid, is prefabbed, Branden explains, "because we can't delay slab building while pipe is pieced together at the site."



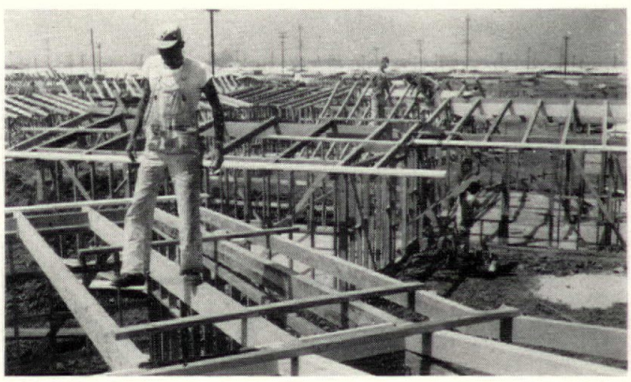
WALLS ARE NAILED TOGETHER while lying flat on slab by three-man rough-framing crew. Sills, previously bolted to foundation by another crew, have been marked to show where vertical framing goes. Branden's carpenters, assigned to specialized crews, do all framing.



WALLS ARE TILTED INTO PLACE, then toe-nailed to sill. Sills are copper-pressurized redwood that resists moisture. Studs are kiln-dried Douglas fir. Skilled framing crews leave slab only to move from house to house. Laborers bring them materials from piles between houses.



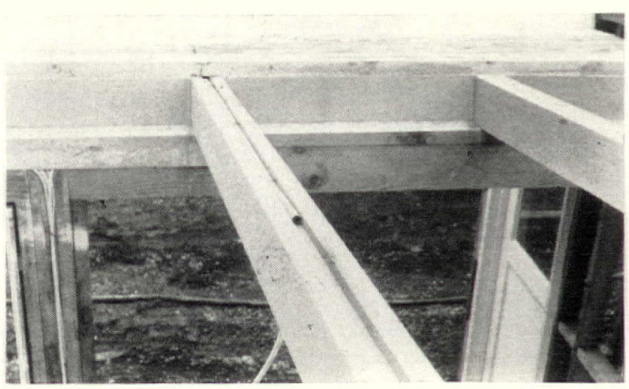
GARAGE RIDGE BEAM IS POSITIONED as soon as it is unloaded from truck to reduce later handling of heavy component. Laborers rest one end of beam on already-erected garage wall. Other end will be raised after other walls have been erected.



RAFTERS ARE PLACED after frame has been plumbed, blocked, and braced by special crew following on heels of rough-framers. Rafter crewman in foreground is preparing way for next crew (roofers) by spacing temporary boards on which bundles of decking will be set.



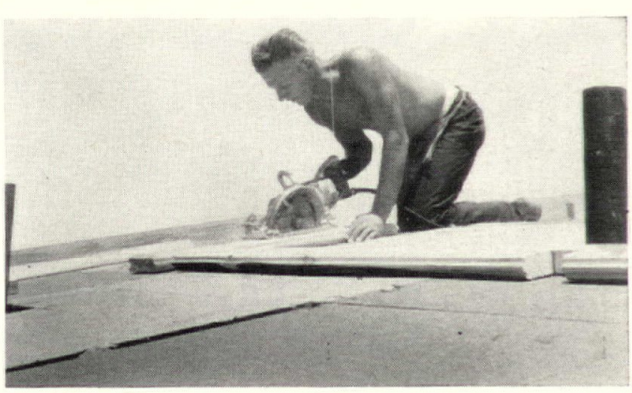
PREBUILT DROPPED CEILING GOES IN as single unit in bedroom corridor. Also prebuilt in Branden's construction yard (*see p 99*) are kitchen cabinet soffits, corner posts, corner crickets. Steel strapping at upper right eliminates need for toe-nailing.



PREGROOVED RAFTER IS INSTALLED. Groove, made in construction yard, forms channel for electrical conduit—thus solves problem of how to hide wiring when sloping rafters are exposed. Rafters have special comb-like texture, are preprimed in yard before delivery to site.



RAFTERS ARE FINISH-PAINTED before roof decking with ceiling on underside is applied. Reason: to avoid tedious paint "cuts" between rafters and ceiling. Ridge is painted later at same time as walls. Fireplaces are also completed before roof goes on.



ROOF DECKING IS CUT with power saw. Portable electric generators, located between houses, supply power. Bundles of 2″ t&g decking are hoisted to roof by high-lift equipment, then spotted conveniently on boards laid across rafters (see second photo, this column).

continued



BUILT-UP ROOFING is applied to finished roof deck (*see p 101*). White aggregate is spread as soon as roof is hot-mopped with asphalt.

From finished roof to finished grade, Branden synchronizes each step to fit into an overall 35-day schedule

"Confusion costs most builders money," says Branden.

To avoid confusion, he sets up his schedule with this goal: make it tight, but not too tight—to give each production sequence enough lead time so crews involved in succeeding jobs won't tread on each other's toes.

How does he manage this? He is guided by two basic facts: 1) He knows how much lumber goes into each house; 2) After he has built a few versions of a model, he knows how much labor each requires. His construction superintendent allots materials, sees they get to the site on time. Field supers, working from manpower sheets, assign men to jobs.

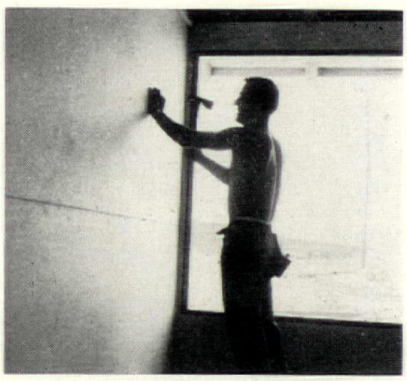
As demand varies, Branden adjusts production (his range: six to ten houses a day), but once he gets rolling, he never starts more houses on a day than he completes that same day.



ROOFED-IN HOUSES have been wired, are ready for stuccoing (a three-coat job). Exposed beams and fascia boards have been prime-painted before erection. With houses at this stage of completion, carpenters, plumbers, tile men and flooring subcontractor can work inside where they are protected from the weather.



BIG DRYWALL SHEETS (12′ long) are standard for Branden. Though cumbersome to handle, they pay off in fewer joints to tape. His carpenters cut and nail up drywall.



HORIZONTAL APPLICATION of drywall makes full use of sheets, which are often room length. Bedding and taping of joints is also easier since much of work is at waist height.



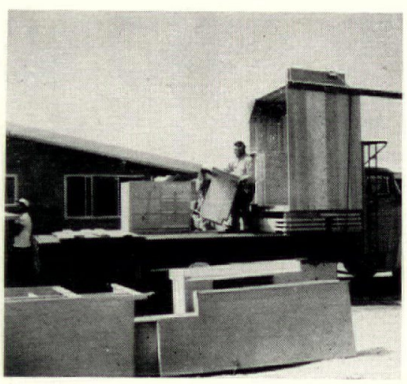
TAPING MACHINE doubles workers' output —3,600 sq ft a day compared to 1,800 sq ft by hand. Branden likes subs to mechanize so they can get out of the way quickly.



STUCCO COATING is applied to wall under wide roof overhang. Branden combines stuccoing and trim painting in one subcontract to get a quality job by fixing responsibility.



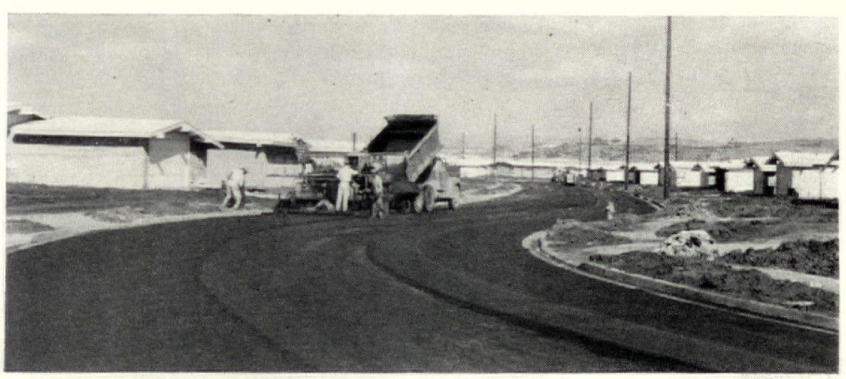
GROOVED REDWOOD SIDING gets a finish coat of paint. Before it is delivered to site, redwood siding is dipped in oil to prevent cracking when it's nailed.



KITCHEN CABINETS and countertops are scheduled to arrive precisely when needed. Cabinets are painted in place "because we take no chances with mars or scratches."



FINAL GRADING OF STREET follows installation by subcontractors of sanitary and storm sewers, curbs, gutters, and sidewalks. Later, water company will drive water laterals.



ASPHALT PAVING OF STREETS is timed to coincide with completion of houses. Branden, who does his own paving, waits until houses are finished to avoid costly interest on borrowed money. He buys as much as 2,000 tons of rock a day for his road bases. So—not surprisingly—he tries to avoid spending money a minute before he has to.



FINAL GRADING OF LOTS is done with small, rubber-tired tractor. Rubber tires and light weight let machine cross concrete walks and drives without cracking them.

continued



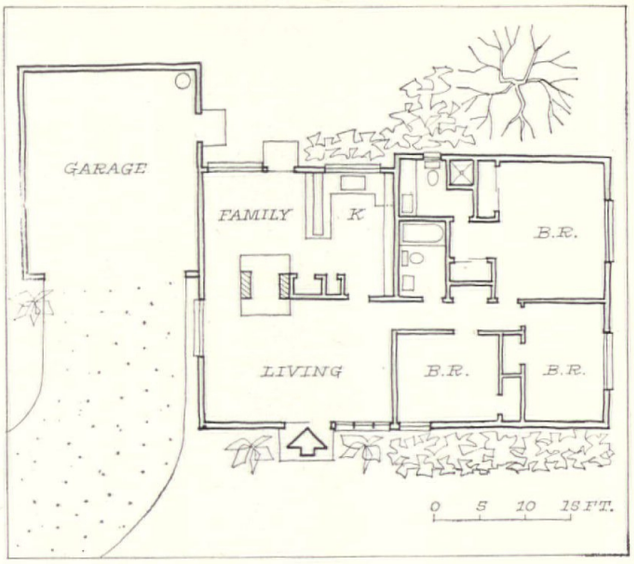
FAMILY ROOM of Branden's Eldorado model has inexpensive contemporary furniture selected by the builder and his architect.

Branden builds only contemporary "because people want a new look and traditional never looks new"

"They like everything fresh and new."

That's how Branden describes the tastes of the young Korean War veterans who make up most of his market. To give them what they like, he has his houses designed by a young Oakland architect—David T Johnson—who combines a flair for original styling with a practical, cost-conscious approach to merchant building.

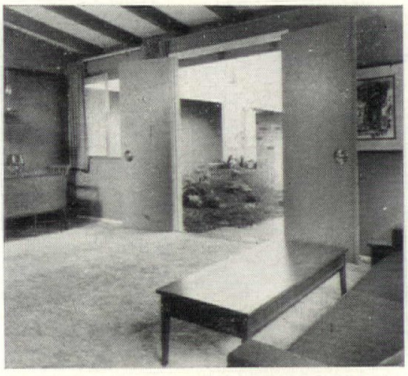
Architect Johnson's designs are crisp, fresh, and uncluttered—unlike the storybook architecture that flourishes in California, also unlike the stark styling the public often associates with modern architecture. Offered at a relatively low price, Branden's brand of contemporary (typified by the $14,900 model shown on this spread) includes fireplaces, glass gable ends, double front doors, dressing alcoves.



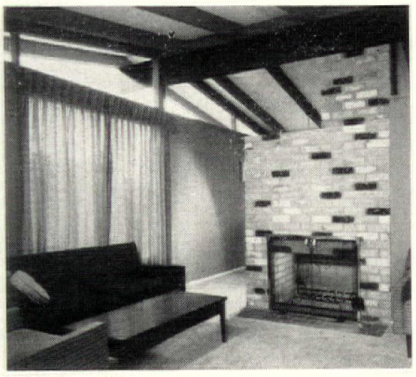
FLOOR PLAN of Eldorado is one of several variations. To get variety without changing basic plan (and hiking costs), Branden moves front entry and garage. Relocated entry—in place of front window—keeps living room out of cross traffic, a weakness in plan shown here.



ELEVATION of model with plan at left—narrow end to street—gets wider look from fencing painted same color as house. Open-rafter lanai, almost a Branden trademark, and patterned masonry wall help to identify house with more expensive, custom-built contemporaries.



DOUBLE FRONT DOOR opens into living room with exposed rafter ceiling. To get expensive look, Branden uses massive door hardware, panels one wall of dining area.



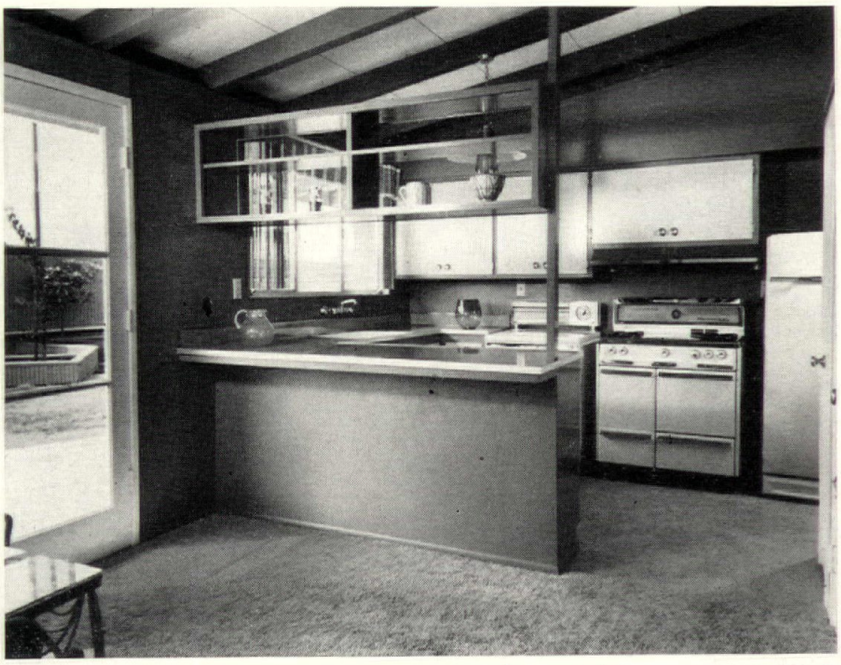
TWO-WAY FIREPLACE with multi-colored brick is another custom-house mark. Brick mass falls short of ceiling and glass gable to give room an open, contemporary feeling.



DRESSING ALCOVE off master bath has sliding-door wardrobe the same size as closet opening into bedroom. This, too, is what buyers associate with more expensive houses.



CURVED CEILING adds interest to bathroom, which has wide mirror, corner lavatory, long, ceramic-tile vanity counter, and drawer space for drugs and toilet articles under counter.



OPEN SHELVES and dining counter separate family room, in foreground, from kitchen. Fireplace is almost out of photo at right. In his kitchens, Branden stems his faucet off the wall instead of the counter to permit more shelf space. To add apparent space to kitchens in his display homes, he runs wall-to-wall carpeting from the family room into the kitchen.

continued

Branden stages a big show and creates a carnival mood to exploit the buying impulse

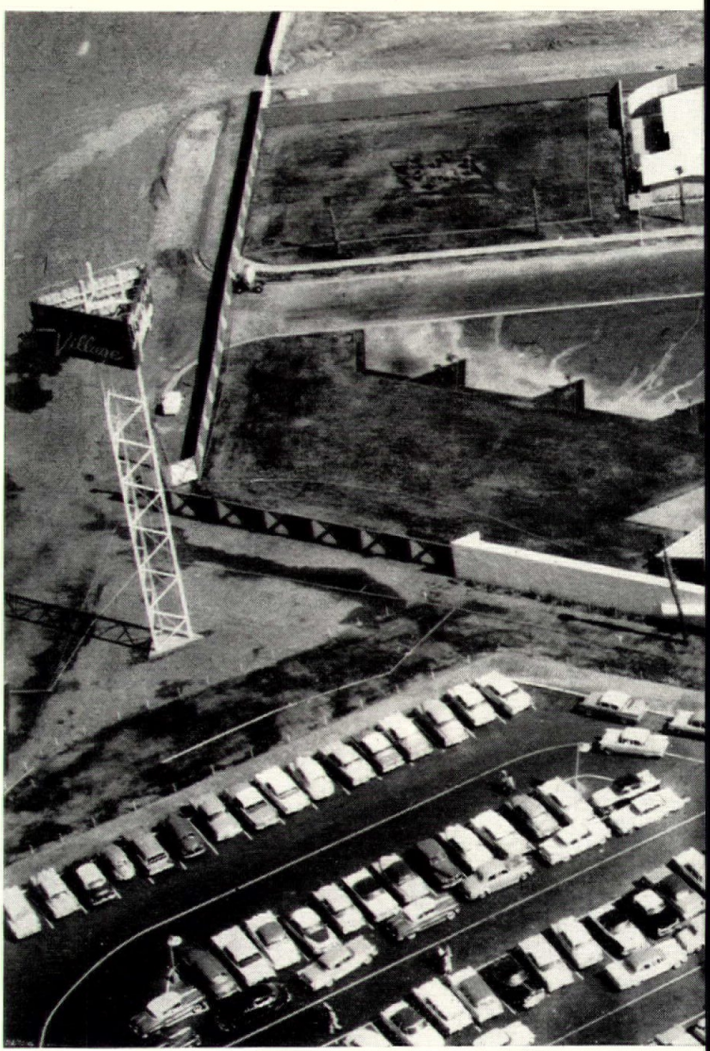
"You've got to stir up excitement if you want to sell a lot of houses," says Branden.

To sell the no-down payment houses at Tropicana Village, he spent $210,000 on a dramatic sales and display center (seen from the air at right), then booked big name entertainment to lure the crowds (48,750 the opening week-end).

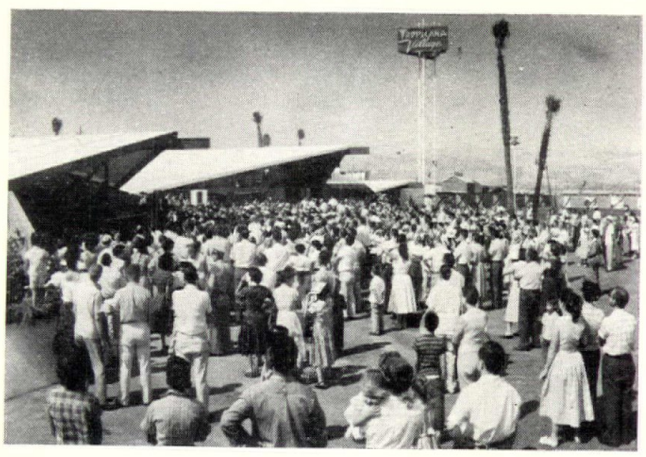
Hollywood stars and other celebrities perform in a band shell next to the sales-display pavilion. (On hand the first four week-ends: the Marx Brothers, King sisters, Gogi Grant, Harry James, Alvino Rey.) Bathing beauties model beach fashions around a swimming pool which is built into a platform beneath a giant highway billboard. (Among the beauties on opening day: Miss USA.) To get crowds out, Branden advertises his performers—and his houses—with radio jingles and four-color newspaper supplements.

Tropicana's product displays and choices of colors and materials are grouped in the pavilion. None are in the model houses. Why? "Because we want our models to look just as they'll look when lived in." Another Branden rule: "Have a sales office big enough not to be crowded."

Despite all the hoopla, Branden says he doesn't try to hard-sell prospects: "All you can do is set the mood so people want to buy when they see the value offered."



PLANNED LIKE A HUGE SHOPPING CENTER, display area has wide



CROWD OF VISITORS gathers to watch week-end attraction—the Marx Brothers (below) who "help put prospects in a happy, receptive mood."



LINE OF VISITORS waits to see one of six model houses. Bathing beauty (below) adds holiday note passing out balloons to children.





impressive entrance, big billboards, sales pavilion, fenced and landscaped models. Vacant lots flanking models are for future display houses.

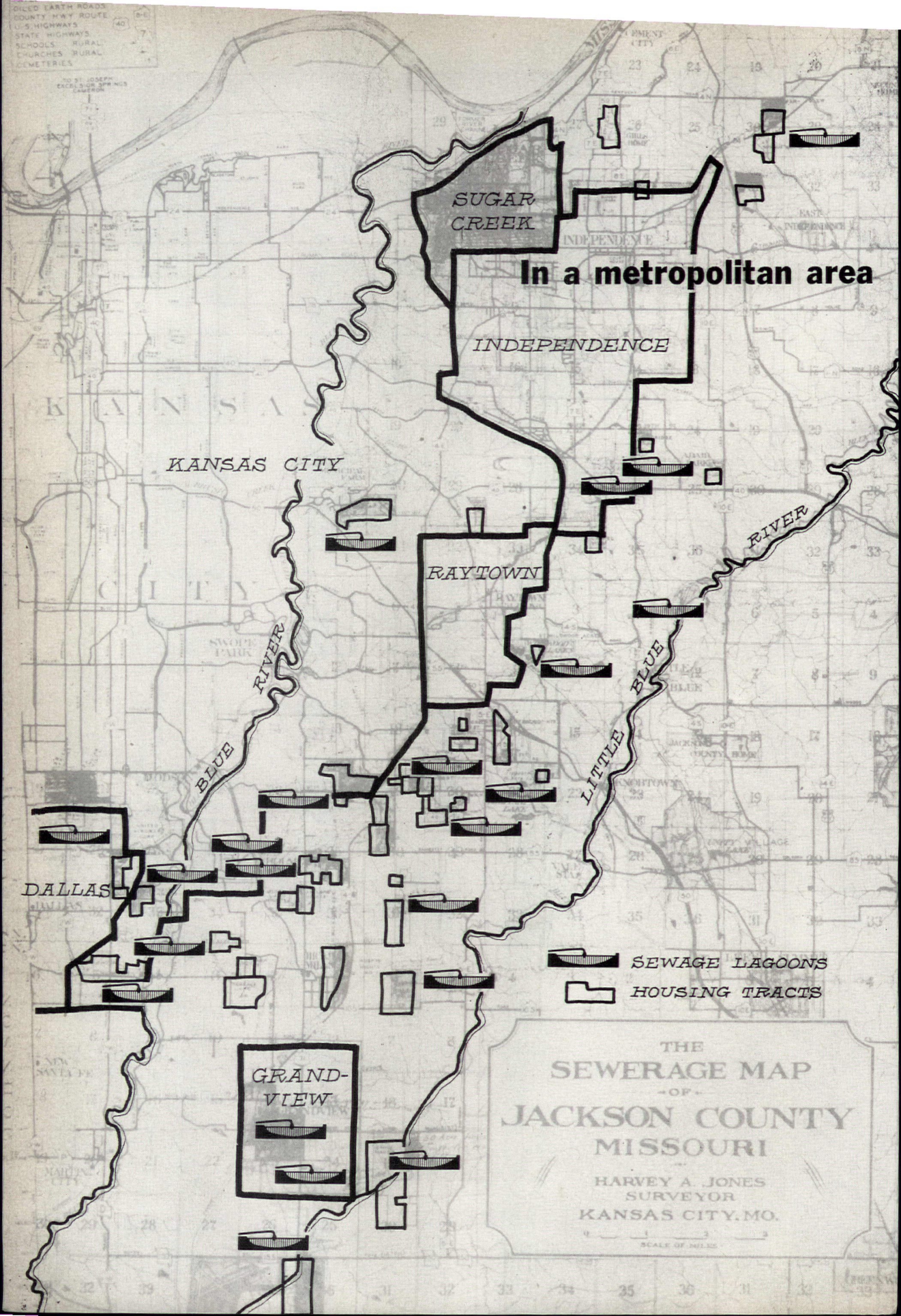


DISPLAY PANELS with colored renderings show visitors choice of houses, choice of colors and textures, and products used in houses.



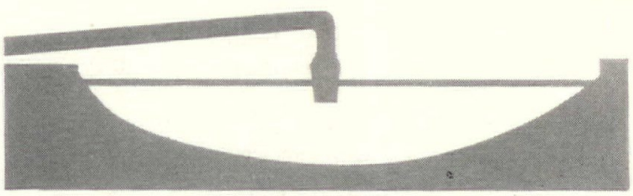
HOSTESSES behind sales counter supplement 20 man, uniformed sales staff. Hostesses answer questions, hand out brochures. /END




SUGAR CREEK
In a metropolitan area
INDEPENDENCE
KANSAS CITY
RAYTOWN
BLUE RIVER
LITTLE BLUE RIVER
DALLAS
GRAND-VIEW
SEWAGE LAGOONS
HOUSING TRACTS
THE SEWERAGE MAP
-OF-
JACKSON COUNTY
MISSOURI
HARVEY A. JONES
SURVEYOR
KANSAS CITY, MO.

Reported by Robert Murray

a series of lagoons can handle all the sewage



SEWAGE LAGOONS *receive raw sewage which is clarified by aerobic bacteria as completely as in other sewage treatment plants. Bacteria get oxygen from algae that thrives under sunlight in the shallow lagoons. The clarified effluent discharges into streams or dry streambeds. For this reason lagoons must be carefully designed to handle the amount and kind of sewage involved (*H&H, *Nov '56 and Feb '58). Various states fix the maximum number of people served from as low as 100 to as high as 450 per acre of lagoon surface.*

In the Jackson County suburbs of Kansas City, simple but carefully designed raw-sewage lagoons are serving thousands of new homes—and at low cost.

Just about everybody now approves of them—lenders, home builders, the FHA, county, state and federal sanitary engineers, county planners, and most home owners. (Exception: septic tank installers.)

Jackson County's experience with lagoons in the last three years has practically disproved the notion that this relatively new method of treating sewage is useful only in sparsely settled areas.

Almost 100 miles of sewers have been installed since the county set up its public sewage system based on a series of lagoons along the natural watershed.

"We have enough sewered lots now," says William Porter, county sanitary engineer, "to take care of needs for several years—enough for 15,000 more houses."

The cost is low because: 1) lagoons involve no heavy construction, can easily be shaped by bulldozers; 2) they need no treatment machinery; 3) they use no pumps (because sewage and clarified effluent flow by gravity).

What about land costs? This can be an important factor in metropolitan areas. In Jackson County, they solved the cost problem with an escrow fund. For details on how it works, turn the page.



3½ ACRE LAGOON built by Ong Investment Corp serves 525-house tract (seen beyond lagoon). Houses sell for $14,000 to $21,000.

Here is how you can make even low-cost lagoons cost less

Jackson County's lagoon escrow plan enables builders to provide public sewers anywhere in the area at a total cost of about $400 per house.

The plan helps builders cut lot costs because: 1) it permits more houses per acre than possible with septic tanks; 2) it eliminates the premium which sewered land commands when it is scarce.

The escrow plan operates through sewage districts (administered by the county court) and provides for a series of "temporary" lagoons. As the area develops, each lagoon is replaced by a larger one farther down the watershed. Ultimately, all lagoons in the county will be replaced by a single large sewage treatment plant.

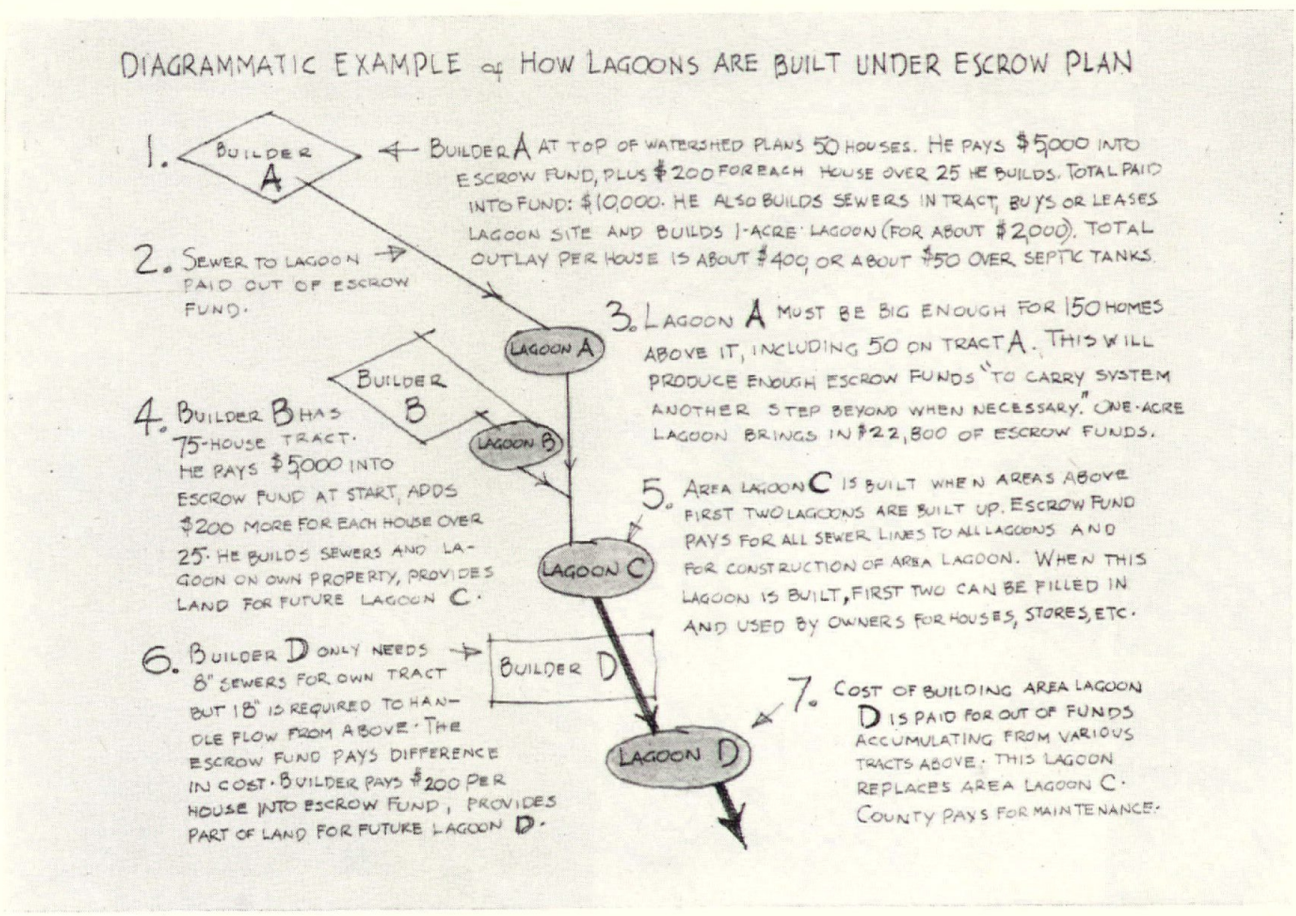
The plan is financed by two types of contribution made by the subdivider: 1) $200 per house is paid into an escrow fund to cover the sewer district's costs for building trunk sewers, constructing lagoons and eventually building the treatment plant; 2) the subdivider (or home builder) spends about another $200 per house to put sewers in his tract and to lend land for the lagoon.

The developer of any tract of 25 or more houses may start a sewer district. He must put up $5,000 at the outset, covering his first 25 houses. He pays $200 as each additional house goes up. This way, builders are not faced with initial outlays of tens of thousands before they can start building houses.

As the diagram below shows, the escrow plan fits any tract, wherever it is located in the watershed.

Here is the step-by-step procedure:

The developer or builder first gets his plot approved, then submits his engineer's plans for a sewer system and lagoon. If approved, the court creates a sewer district for



by adopting an escrow plan like the one used in Jackson County

the tract. The court can condemn a right-of-way for sewer mains to the lagoon (but so far has not had to do so). It can also levy a small tax to cover maintenance.

Escrow funds may be spent only for off-site sewers, engineering fees, lagoons, and the treatment plant when it is finally built. All construction contracts are awarded to lowest bidders. Sizes of sewer mains and lagoons, wherever built, must conform to the county engineer's sewerage plan that will eventually serve the whole county.

The developer has no control over the escrow funds. However, property owners recover any unspent money if their districts are annexed to Kansas City or other towns. This has helped spur annexations.

Here is why builders like the lagoons:

Says Builder Ray Hodge: "Jackson County's lagoons system is the finest deal that's ever happened to builders here. I used to build more septic tanks than anyone. At $325 up, they don't get full credit on valuations. But valuation on our houses with lagoons has brought full return or more for all we've spent."

Says Ansel Mitchell, engineer for J C Nichols Co: "We have a 4½-acre lagoon for a 450-house development. Lagoons are all right if not overloaded. Three years ago I was quite skeptical about them. Now I'd rather live a block from a lagoon than a quarter-mile from any other type of treatment plant."

Says Charles Coleman, chief underwriter for FHA in the area: "Lagoon odor is negligible. The big objection is esthetic, though few ever object. We recognize that when you get your laterals and mains in, your buyer is not faced with later high costs for these. That is important in areas like ours where septic tank failures have made people aware of sewerage costs. Only 5% of the houses FHA insures here now have septic tanks." /END



BEFORE: Two acre lagoon treats sewage from several hundred homes. As areas grow, lagoons like this are replaced by larger ones.



AFTER: This house occupies site of former small lagoon which was filled in after larger one was built down the watershed.

18 states now approve sewage lagoons

Sewage lagoons are now in use in at least 18 states, some on a test basis. These states include California, Colorado, Florida, Illinois, Indiana, Kansas, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Ohio, Pennsylvania, South Dakota, Texas, and Wyoming.

There are more than 300 lagoons in the Midwest alone. They are working well all the way from Canada to Costa Rica. This method for treating sewage is accepted for most climates by the US Public Health Service.

Wider acceptance of sewage lagoons has been delayed for two main reasons, lagoon supporters say. One is that "they sound too good to be true." The other is that "engineers won't go out of the way to support them because fees for designing lagoons are much lower than for designing other systems."

Latest state to permit a test of the lagoon treatment method is Pennsylvania. Builder Nelson Beggs is building one on .8 of an acre in the Pittsburgh suburbs to serve the first 37 houses in his new tract. Cost (including swamp drainage): under $10,000.

Pennsylvania officials were induced to permit the one year test by members of the HBA of Metropolitan Pittsburgh and A D Sideo, Allegheny County health engineer, who learned about this method in the Far West. Says Sideo: "I am sure this lagoon will provide as good treatment as any other plant—public or private, big or little—in the state. It can easily be doubled in size. I have no doubt it will then adequately serve all 147 houses in Mr Beggs' entire tract."

Both sides and Jackson County Engineer Porter say lagoons would be economically feasible in most metropolitan areas.



Board-and-batten look is achieved with aluminum siding in new National model, which also has aluminum roof, roof strip, fascia, soffit, trim.

This conventional looking house

National Homes' new Chateau model, first mass produced house with an aluminum roof and walls, is also first with:

1. A factory-painted roof and walls.

2. Long-life baked enamel paint on the roof and walls.

3. A riveted, single-layer roof that reaches the site in big sheets (4′ wide) instead of little pieces.

Builders benefit from these "firsts" because they mean less on-site assembly and finishing. Buyers benefit because aluminum with a baked-on finish means less maintenance.

Says National's Research Director Willard Worth: "The exterior finish is the best ever offered by a prefabber. You can't bake this finish on wood."

Adds Alcoa Vice President Fritz Close: "The 4-S aluminum skin is tough—the best alloy we make for corrosion resistance. Its baked Dupont finish gives it a surface that will outlast the mortgage in any climate."

Do the walls and roof look metallic? No—not even from a few feet (see photo above). The aluminum sheet looks slightly mottled—not shiny—when painted.

The house is also significant on two other counts:

1. It is more highly prefabbed than most manufactured homes. Its wall panels are practically completed—inside and out—before they leave the factory. Drywall, insulation, and moisture barriers are installed. Windows are glazed and set in place. Siding is applied and painted. Only jobs for the builder at the site: erect the panels, tape and paint the drywall, and install trim.

2. It is the product of cooperative research and development. Instead of trying to go it alone in designing and engineering the house, National worked closely with major suppliers like Alcoa, Reynolds, Kaiser Aluminum, Dow, Dupont, Minnesota Mining, and Westinghouse.

Says Research Director Worth: "We had to learn to use new materials and we ran into new problems—how to

House sells for $20,000 plus lot—top price in company's new aluminum line.

is a new prefab with an aluminum skin

laminate aluminum to gypsum board, for example. We feel that with the cooperation of our suppliers, we have advanced the technique of building houses."

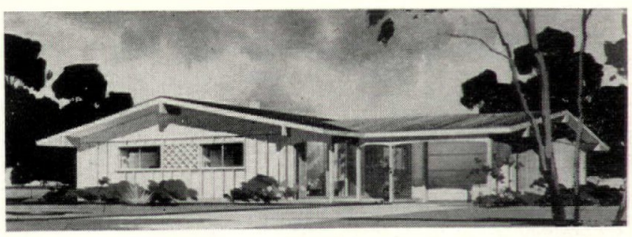
Will aluminum houses cost more than others?

"No," says National's Chairman Jim Price, "they are priced the same as our non-aluminum models. Also, we are offering them in a broad enough price range to meet the needs of all our builder-dealers."

The Chateau ($20,000 without land) is the top-priced house in the company's new Viking line of aluminum models. Others (see two examples at right) start at $7,600 without land.

For a closer look at National's Chateau, *see the next four pages.*

For a look at the plant production and site assembly of aluminum wall and roof panels, *see p 118-121.*



Low-priced aluminum-clad model is Fair-L-Wood ($10,000 plus lot).



Lowest-priced in new aluminum-clad line is Fairlane ($7,600 plus lot).

continued



Rear of prototype model opens onto large terrace, which will show visiting builders how house invites outdoor living.

All photos pp 112-117 © Ezra Stoller



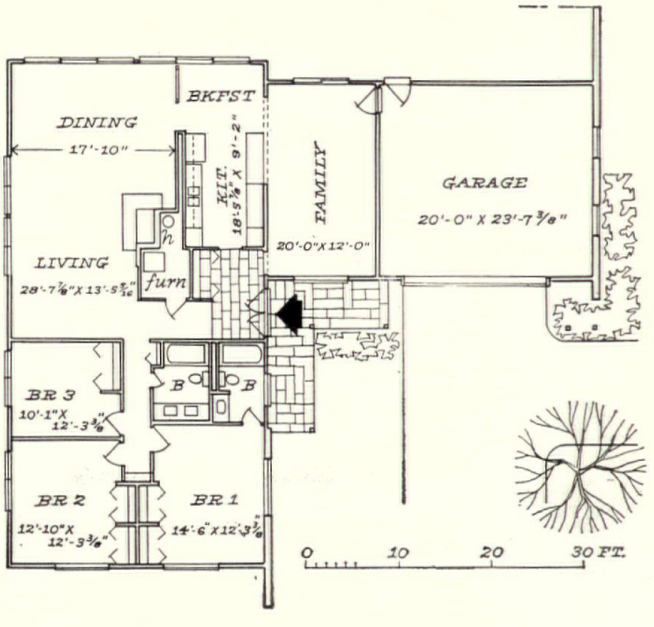
Formal living and dining room, foreground, and breakfast area, background, flow together in open plan. Family room is beyond breakfast area.

Indoor-outdoor living gives the house its charm

Across the rear of National's new Chateau model four pairs of sliding window walls open onto a terrace (left) from the living-dining and breakfast areas (above) and the family room (not shown).

The terrace is an extra—built with the prototype model in Lafayette, Ind, to point up the plan for outdoor living. The model is in exclusive Vinton Woods, where most homes sell for $50,000 and up. It was sited so the terrace and rear living areas overlook a small lake and a country club.

National's President George Price says the Chateau and the company's other new aluminum houses will be backed with "the biggest promotion campaign in our history." Starting in January, National will run ads in LIFE, at least six other consumer magazines, and the trade press. At the same time, suppliers (Alcoa, Reynolds, Kaiser Aluminum and others) will tie in with magazine and TV advertising.



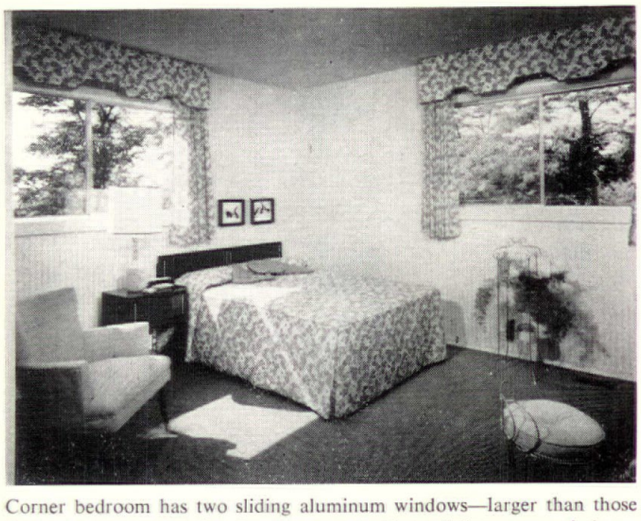
L-shaped plan has 1,696 sq ft plus oversize garage. Three bedrooms and two baths are well separated from living areas. Family room is isolated from living-dining room but equally accessible from outdoors.

continued

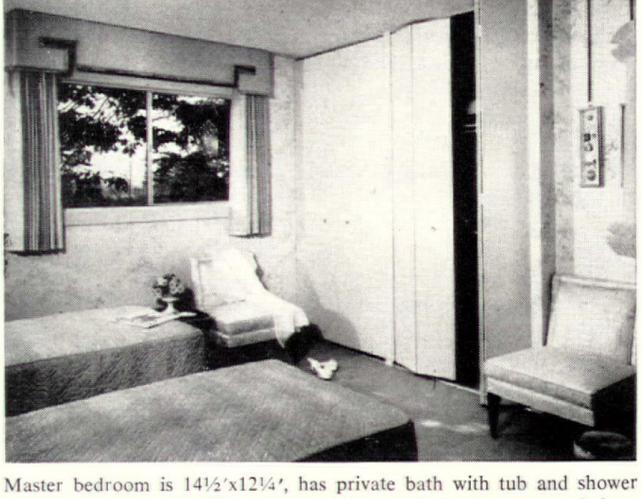


L-shaped living room, seen here from formal dining area, is 28½′ long, centers on two-way corner fireplace of Indiana limestone.

You can see the many buyer appeals designed



Corner bedroom has two sliding aluminum windows—larger than those formerly used by National and same depth as living room windows.



Master bedroom is 14½′x12¼′, has private bath with tub and shower and double floor-to-ceiling closets with metal-edged gypsum shelves.

Conveniently located kitchen, viewed here from famiiy room, is easy to reach from family room, breakfast area at right, formal dining area in background, and terrace beyond window wall at far right. Recessed chopping block in center foreground covers built-in barbecue.

into these rooms

You can see the open planning, the large fireplace, the big bedroom closet, the double-sink bath, the high-style kitchen packed with labor-saving equipment.

The kitchen, a major talking point, has two ovens—one electronic—countertop burners, a barbecue, dishwasher, clothes washer, and dryer. Its cabinets and counters are modular units designed by Paul McCobb for Mutschler Bros (see H&H, July, p 148). The cabinets are maple, the counters Formica. Shelves are adjustable.

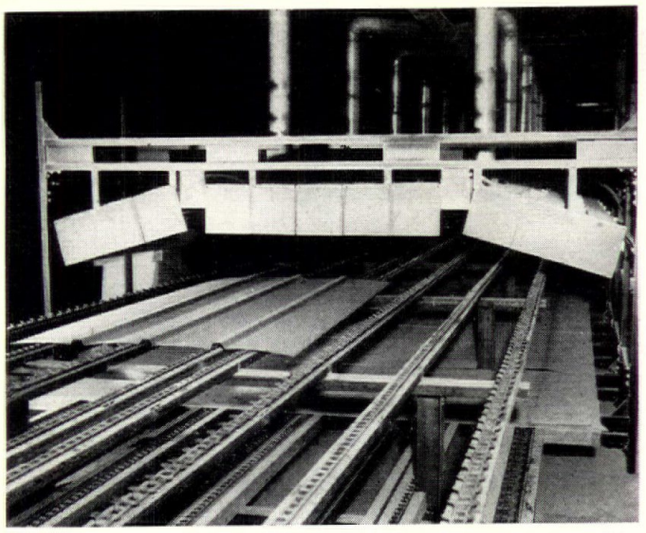
(National limits McCobb units to its higher priced models. For houses under 1,200 sq ft, the company will soon start making its own cabinets and doors in a recently purchased plant at New Albany, Ind.)

Furnishing of the show house pictured here was directed by Decorator L S Ayres of Indianapolis. He used wallpaper, patterned fabrics, soft rugs, and lots of color to get a feeling of warmth.



Family bath off bedroom hall backs up to master bath, gets lots of glamour from double basins, wall-length mirror, stylish light fixtures.

continued



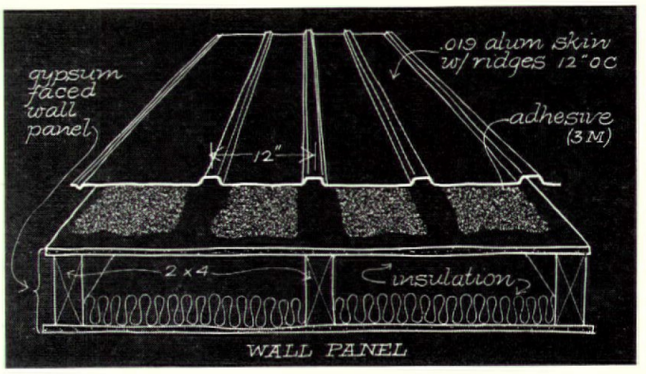
Painted sheets move through oven, are baked seven minutes at 250°.



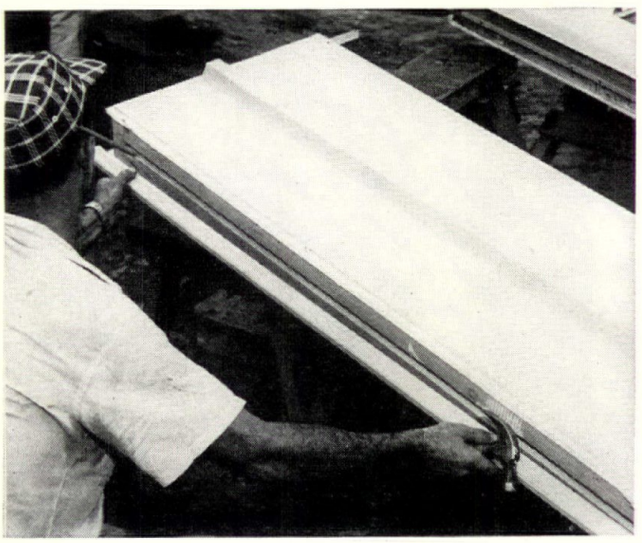
Rollers press aluminum sheet to wall panel, as boards protect ridges.

1. Factory painted skins are bonded to panels

From aluminum fabricators National receives sheets primed, cut to size and with ridges formed. These are spray painted by National, baked as shown above, then passed through a roller that securely bonds the sheet to the outer ⅜″ gypsum board on the wall panel. A new 3M adhesive is used. Aluminum is .019″ thick, 98¼″ in length and varies to fit panel width. Ridges are 12″ apart. Gypsum was chosen as the lowest cost material that meets panel specifications. Panels were put through testing program at Purdue and have been approved by FHA. Cutaway drawing at the right shows where adhesive is applied to the outer gypsum sheet.



Here is how the panels are made and assembled

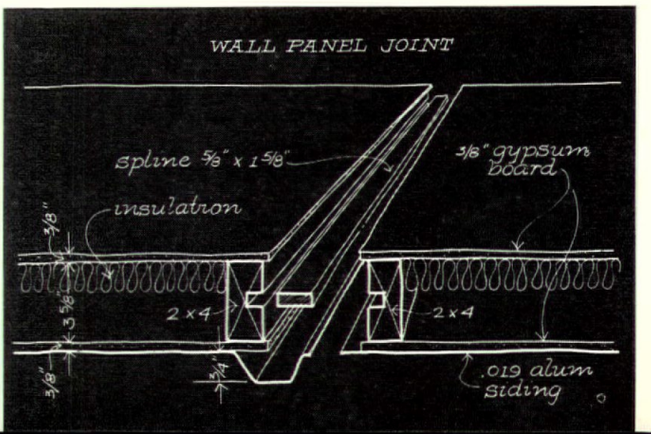


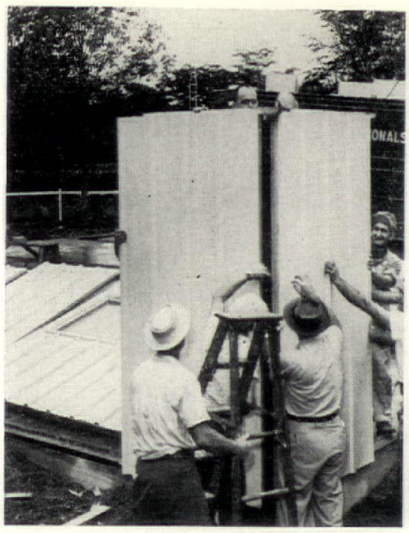


At the site a workman pushes the spline into a routed 2x4 in panel . . .Spline is then nailed in 2x4 with 8d common nails, spaced 32″ o c.

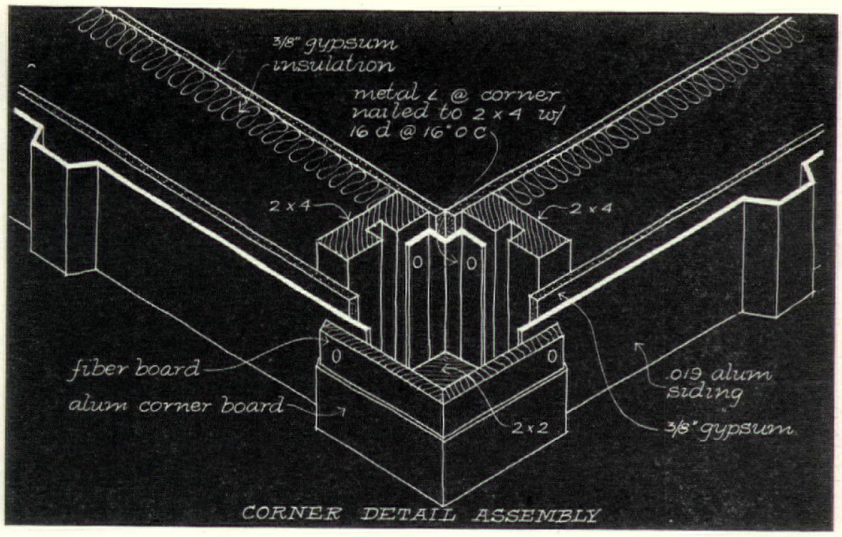
2. Wall panels fit together with a wood spline

Panels go together as shown in the drawing at right. The panel with the unridged surface fits under the adjoining panel with the ridged surface so the outside joint is next to a ridge and almost unnoticed. Later the joints are riveted as photos on next page show.



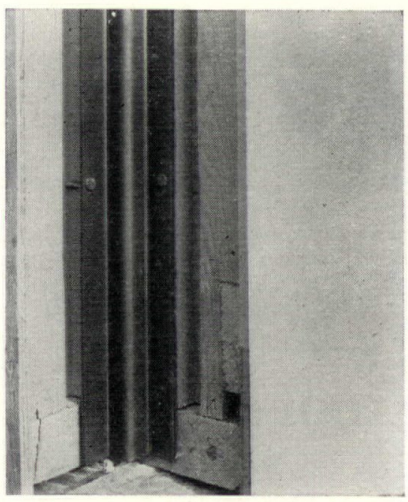


First to go up are two of the corner panels.



Steel plate, roughly shaped like a W, is nailed (with 16d nails, 16" o c) to the inside corners of the 2x4s forming one edge of the panels. To fill out the corner an L-shaped fibre board is fitted (see below) and this is covered by aluminum. Corner panels have let-in bracing.

3. Corner panels are joined by a steel connector



Steel post is used wherever corner panels meet.

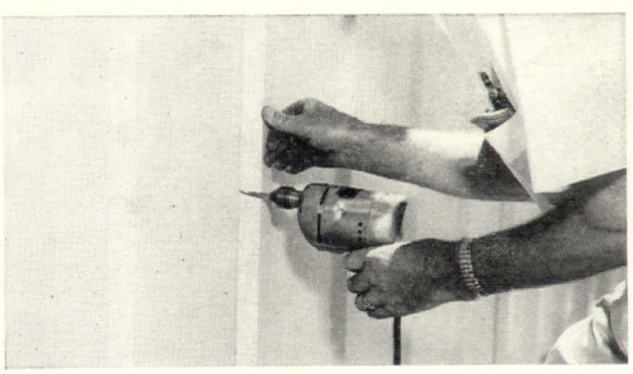


Then L-shaped fibre board cover is nailed on.



Finally prepainted aluminum is snapped on.



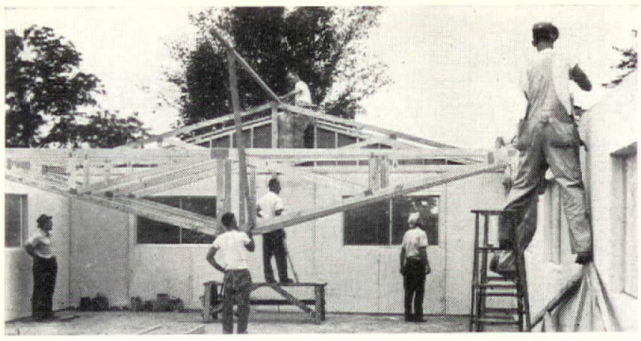


After one panel is slid over another the overlap is drilled, riveted.

4. Wall panels go together with a new "shoehorn"

This special tool that works like a shoehorn was developed to protect the aluminum edges when the unridged edge is slid under the adjoining ridge. The lap is 11/16" under the ridge and the lip on the top panel is wide enough to permit drilling and fastening with pop rivets.

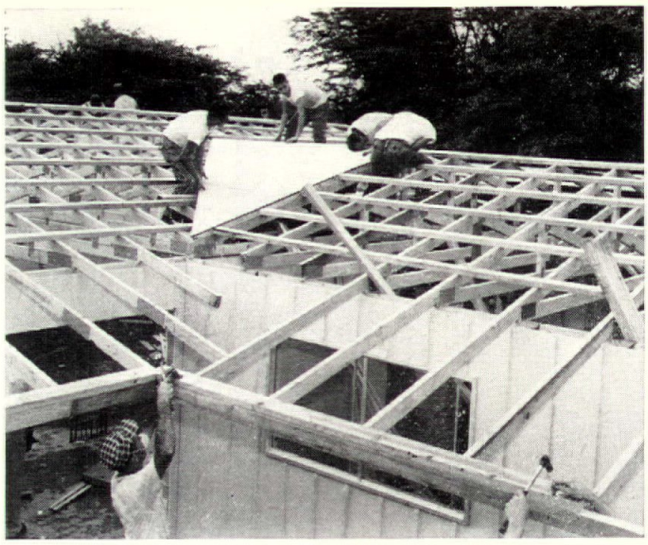
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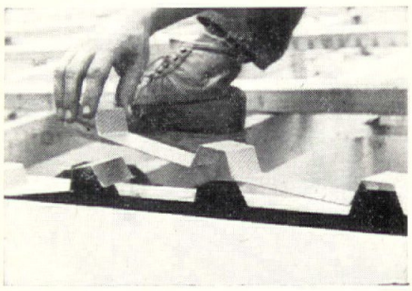
Nailed, H-brace trusses 24″ o c go up fast after walls are assembled.

1. A riveted skin goes over trusses and purlins

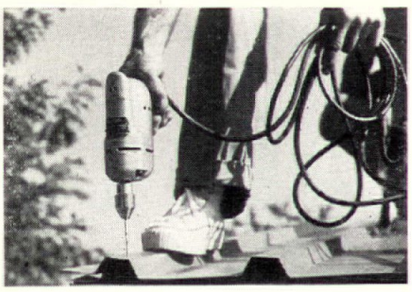
To support the .028 aluminum sheet roof National has added purlins 24″ o c to its trusses. In production models, aluminum strips (as in photo below) are nailed to purlins in plant. Aluminum sheets 4′ wide and running from ridge to gutter are riveted to these strips.



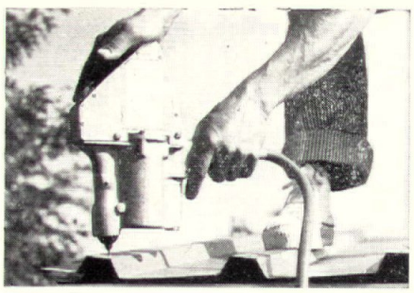
Plywood panel was made for roof valley which replaces purlins here.



In prototype house aluminum strips were nailed to purlins with aluminum ring nails in field. Plant nailing will be faster.

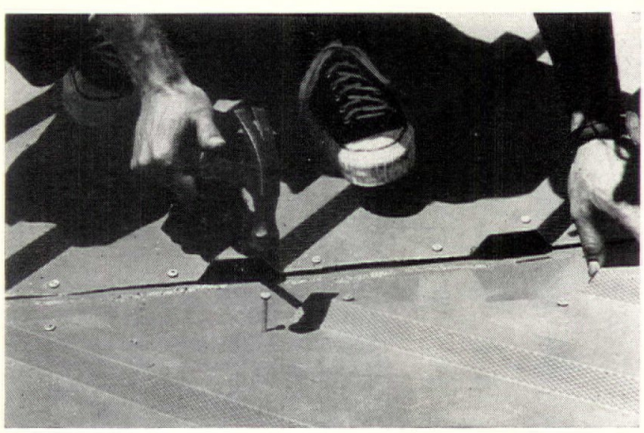


After roof sheets are in place one man drills ⅛″ rivet holes 24″ apart through both the sheet and nailer strip. Ridges are 8″ o c.

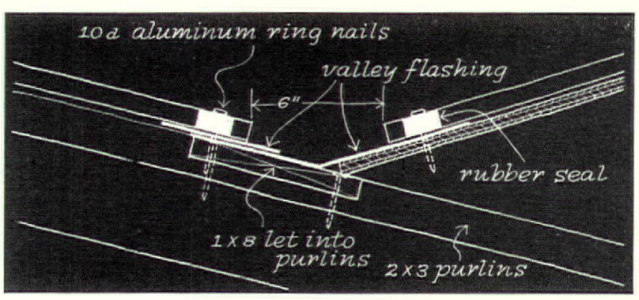


Using Pop rivets,, second man rivets with pneumatic, hydraulic or hand pressure gun. Rivet heads are almost hidden.

Here is the story of the one-layer roof system



Nails holding valley sheets go through metal and rubber to plywood.



2. Roof valleys require a special rubber flashing

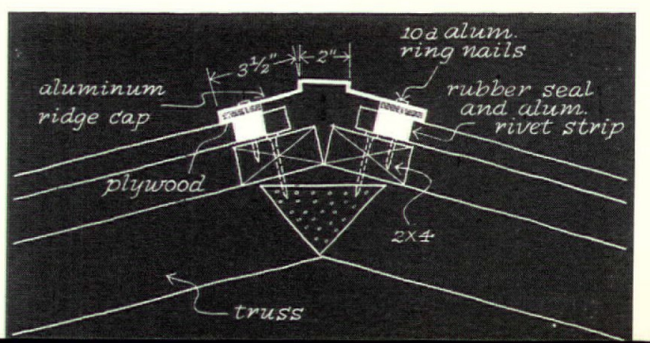
Water is prevented from seeping through the roof by first folding in a V-shaped aluminum strip 14″ wide. On top of this goes a formed rubber sealer strip that acts as waterproof sheet. Then large sheets of aluminum are nailed on (photo left). Nails have rubber seals.

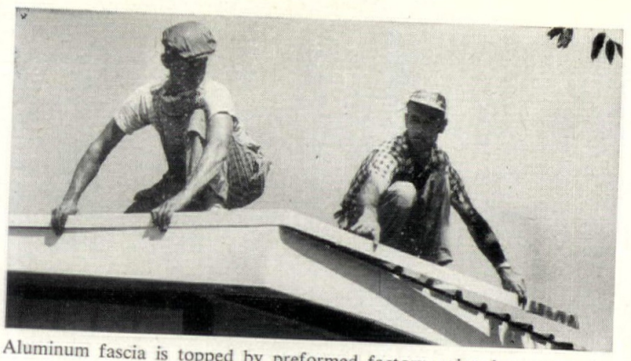
Ridge cap laps over aluminum sheets on both sides, is nailed down.



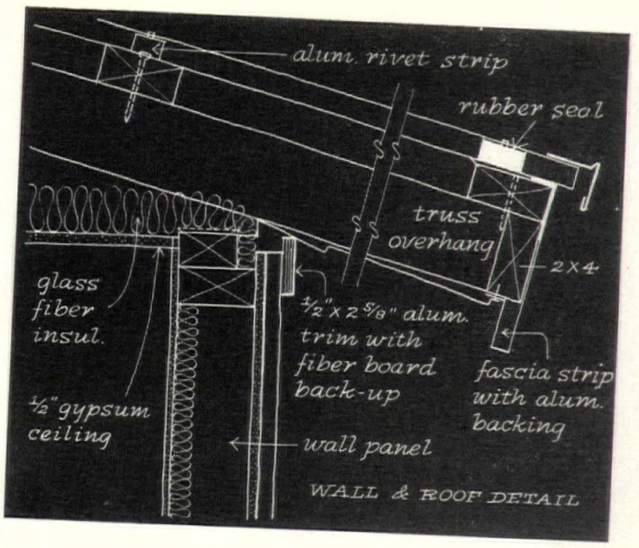
3. A nailed aluminum cap strip crowns the ridge

Drawing below shows details of the ridge cap installation. Edges of the cap are fastened to a plywood strip and nailed through a rubber seal.





Aluminum fascia is topped by preformed factory painted corner strip.

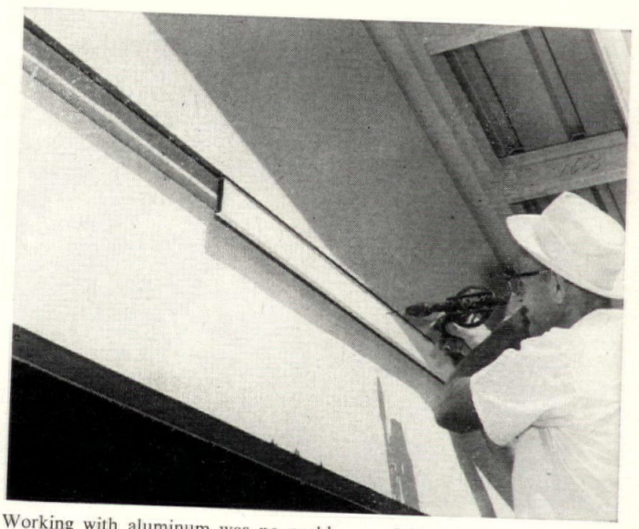


4. Everything is covered with aluminum

More details of the roof system are at the right. This roof was thoroughly tested by Alcoa (with testing witnessed by a Penn State professor). The roof withstood 525 lbs concentrated load at 1" diameter before failure, more than adequate strength for housing.



Aluminum fascia on gable-end overhang fits around wood member.



Working with aluminum was no problem to field carpenters.

5. Hardboard gable ends will be changed to aluminum

Originally planned to be made of hardboard, the gable ends in production houses will now be made of aluminum. And a few other wood members, like porch posts, will probably soon be made of aluminum so that all exterior parts can have factory baked on paint.

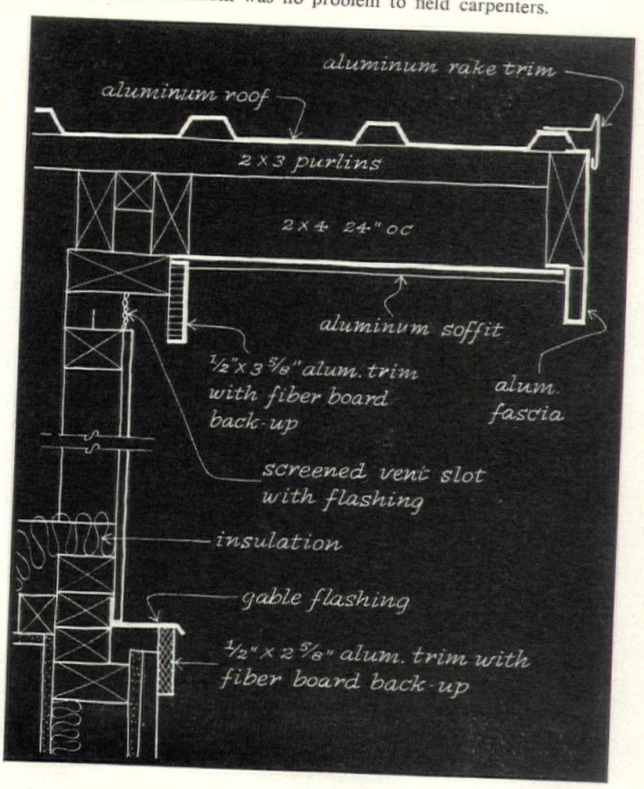


After insulation is installed the sheets of ½" gypsum are put up.

6. Ceiling is insulated, then finished with gypsum

Insulation and gypsum board reduce noise from heavy rain to a decibel level as low as that of houses with conventional roofs. "It's a different kind of sound," says Research Director Worth, "but the noise level during a 1" rain in one hour is the same."

/END





By Richard O'Neill

WOOD

There is more new about wood—and the things you can do with wood in home building—since World War II than in all previous recorded history

From the chemist's world of test tubes and retorts, wood is being given new qualities and new properties.

From the engineer's world of mathematics and stress analysis, wood is being given a whole new potential as a structural material.

And from the production engineer's world of new machinery, wood is being given new forms that increase its usefulness.

More than $20-million is being spent each year to make wood an even better material for home building. That is more money than is spent for home building research on any other material. And that is enough money to produce truly dramatic and important results.

The wood industry's big drive for the market begins back in the forest. Faced with shortages of better grades of lumber by 1975, the industry is already developing new ways to get more wood with less waste—so wood's cost can be held down. (We are growing more wood than we cut, but the supply of big 100 to 300 year old saw timbers is dwindling.)

One promising possibility: whole trees may be ground up right in the forest. The chips would be carried to the mills hydraulically —through long flumes—to be made into fiber and particle board. Also, more wood will be sliced instead of sawn. Slicing (which can produce 5/8" thick "veneers") saves up to 50% of the wood now lost in sawing.

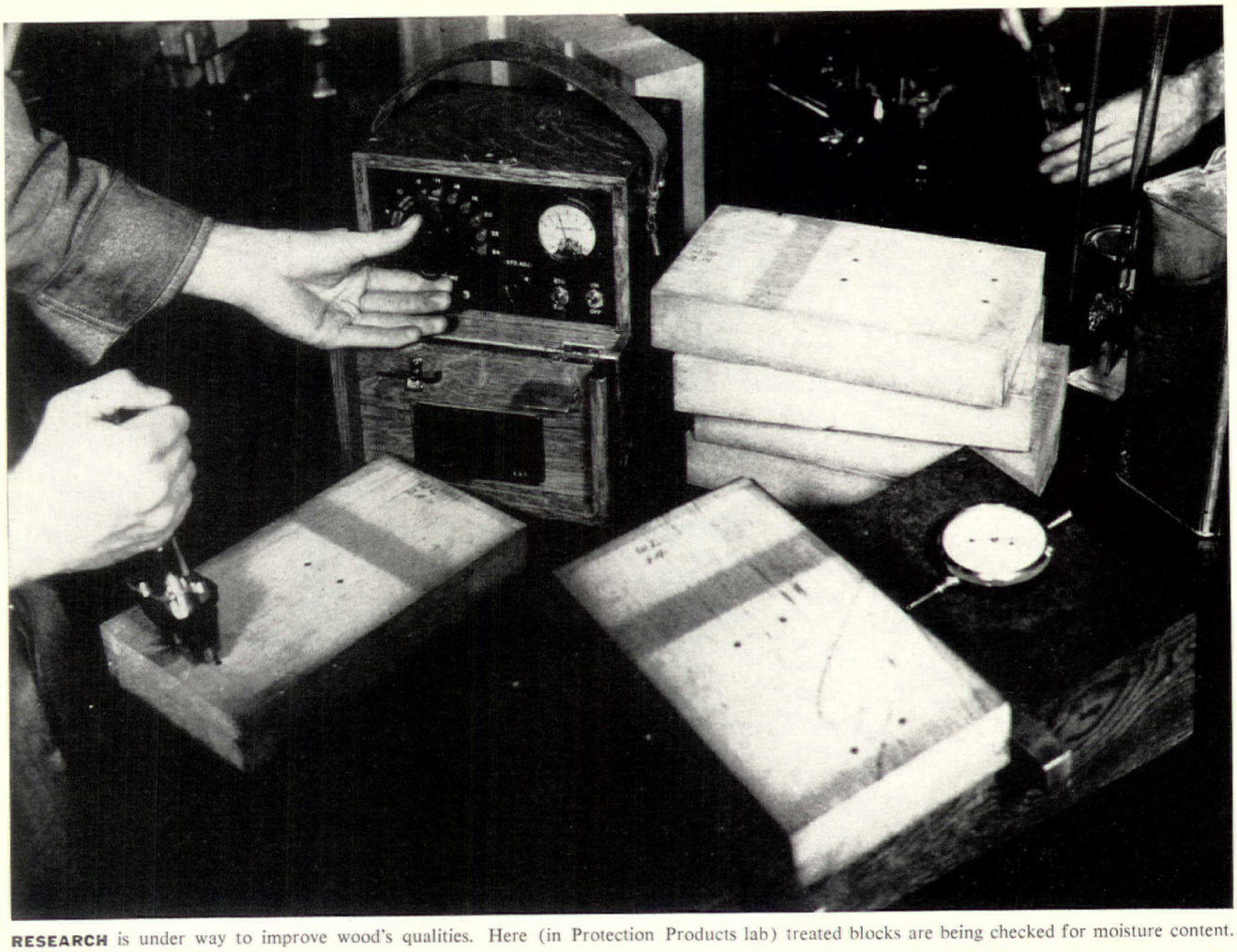
Glue laminated wood arch with overhang arm supporting double t&g wood decking in Samuel Herron house, Venice, Fla. Architect: Victor Lundy, AIA

Lisanti

These and other new developments suggest an important fact:

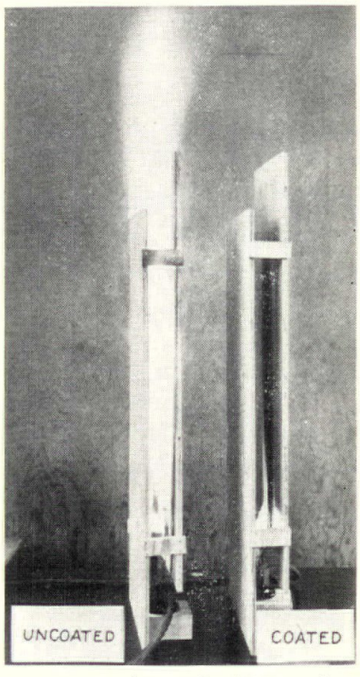
Now is the time to take a new look at wood and the ways it can be used in home building

Chemistry is making it a better than ever material . . . . . p 124
It is being converted into new more versatile products . . . . . p 126
Better finishes are extending its use . . . . . p 128
New adhesives and connectors make it easier to join . . . . . p 130
Its strength is now being used more effectively . . . . . p 132
And now it can even be used as a plastic material . . . . . p 134



RESEARCH is under way to improve wood's qualities. Here (in Protection Products lab) treated blocks are being checked for moisture content.

Chemistry is making wood a better than ever material



FIRE TEST shows effectiveness of experimental fire retardent on plywood.

The day is not far off when wood's good qualities—its beauty and warmth and strength and light weight—will no longer need to be balanced against its weaknesses.

Technologists are close to producing wood that termites can't eat, fungus can't destroy, fire can't consume, moisture can't expand—and that comes in sizes trees can't produce.

The key: new families of more effective preservatives

There are plenty of things that can be done right now to cut the $500-million annual building loss caused by decay and termites. For example: decay can be stopped by keeping wood dry. Termites and decay can be stopped by using the naturally toxic woods—cypress, red cedar, or redwood; or by using pressure-treated wood. (Treated lumber for sills, blocks, posts, girders, joists and subfloor would cost about $120 for a 32′x40′ house.)

All existing anti-termite and fungus preservatives work by depositing toxicity in the wood cell. Although some of these preservatives (notably the water-borne ones) leave little or no discoloration, most will discolor the wood. But chemists are working on a colorless, non-leachable preservative treatment that can be sprayed on lumber in place. Called "double diffusion," the treatment involves two different chemicals sprayed on one after the other. They react within the wood leaving a toxic, insoluble material.

Other new termite cures now in the laboratory stage are

being built around ways of making cellulose (the solid framework or cell walls of wood) indigestible, without noticeably changing its other physical characteristics. And decay preventives are being perfected to destroy the vitamins and trace metals in wood which fungus needs to grow and thrive.

Most of the toxic salts used in decay and termite preservatives also act—in varying degrees—as fire retardents. Chromated zinc chloride preservatives work especially well. The most promising new experiments are with new families of organic phosphate compounds. One new preservative just coming on the market (see new product section below) can give a wood roof deck a Factory Mutual rating better than the rating given Class I metal deck.

Dimensionally stable wood is at the laboratory stage

Chemists have developed two unusual methods of cutting expansion caused by moisture (the usual method is lamination, as in plywood). The most promising technique, called acetylation, changes the cellulose in the wood to make it actually non-susceptible to the presence of moisture.

The second process involves the use of plasticizing agents which unite with the cellulose to make it a more stable fiber. In experiments by Upson Company engineers, plasticizing has reduced expansion in pine as much as 80%.

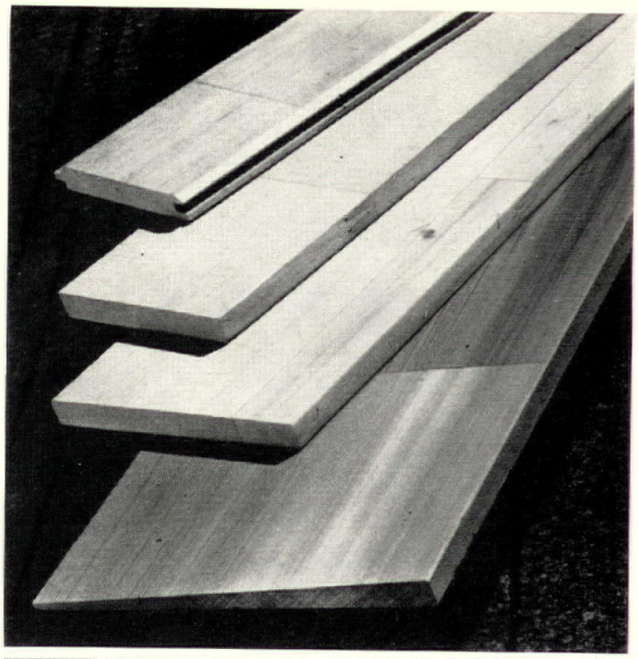
And now lumber can be "manufactured" any size

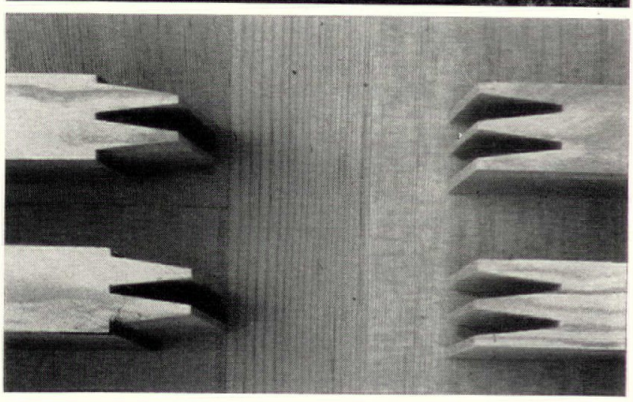
Faced with the inescapable fact that there are fewer and fewer big trees, the wood industry has developed methods of gluing short lengths, thin pieces, and knotty lumber into lumber that is equal or superior to choice lumber.

Finger, or multiple-scarf joints (photos upper right) can be used to make siding and paneling to any dimension. With new machinery now being developed, finger-jointed lengths can be turned out almost continuously, so costs for full-length stock should soon be competitive with short lengths.

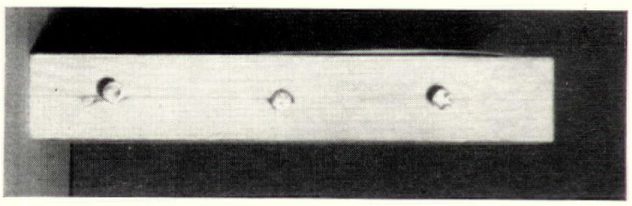
Laminating thin pieces of wood into 2x4s (see photo, second from bottom at right) and decking provides a strong material at a good price. Costs are held down because much of the 1x4 material used was formerly mill waste. With high-frequency curing of the glue bond being perfected in the labs, 2x4s will soon be laminated on continuous conveyor systems. The same thin pieces can be built up in three layers with the center layer offset—to form a tongue and groove.

Low grade, narrow strips of lumber are being glued and overlaid with impregnated paper faces (photo lower right) to give wide boards. This process (developed by Forest Products Lab) can make wood of even cheap weed trees like aspen and cottonwood practical for siding. In the offing: continuous (vs batch) production of such boards and sheets, with paper both sides, which may sell for less than the lowest grade of plywood.





FINGER JOINTS (photo just above) machined in ends of short lengths make joint strong enough for use in siding and paneling. When painted, glued surface joints (top) can't be seen.



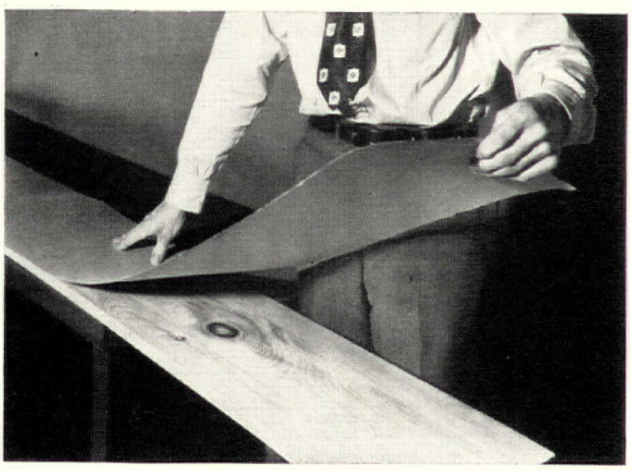
LAMINATED 2x4 made of two 1x4s has glue bond strong enough to withstand three spikes driven right through glue line.

NEW PRODUCTS *made possible by today's progress in wood treatment and in upgrading include those listed below. For more data, use the special wood products coupon you will find on page 214.*

KOPPERS CO. Non-Com fire retardent treatment lumber with Factory Mutual rating comparable to Class 1 metal deck. *For full data, circle No. W1 on coupon, page 214.*

WEYERHAUSER SALES CO. Nu-loc siding and paneling made of short lengths of western red cedar and other species (photos, top right). Also Sheathall sheathing made of short lengths of pine, edge glued and paper surfaced in 4x8 sheets. *For full data, circle No. W2 on coupon, page 214.*

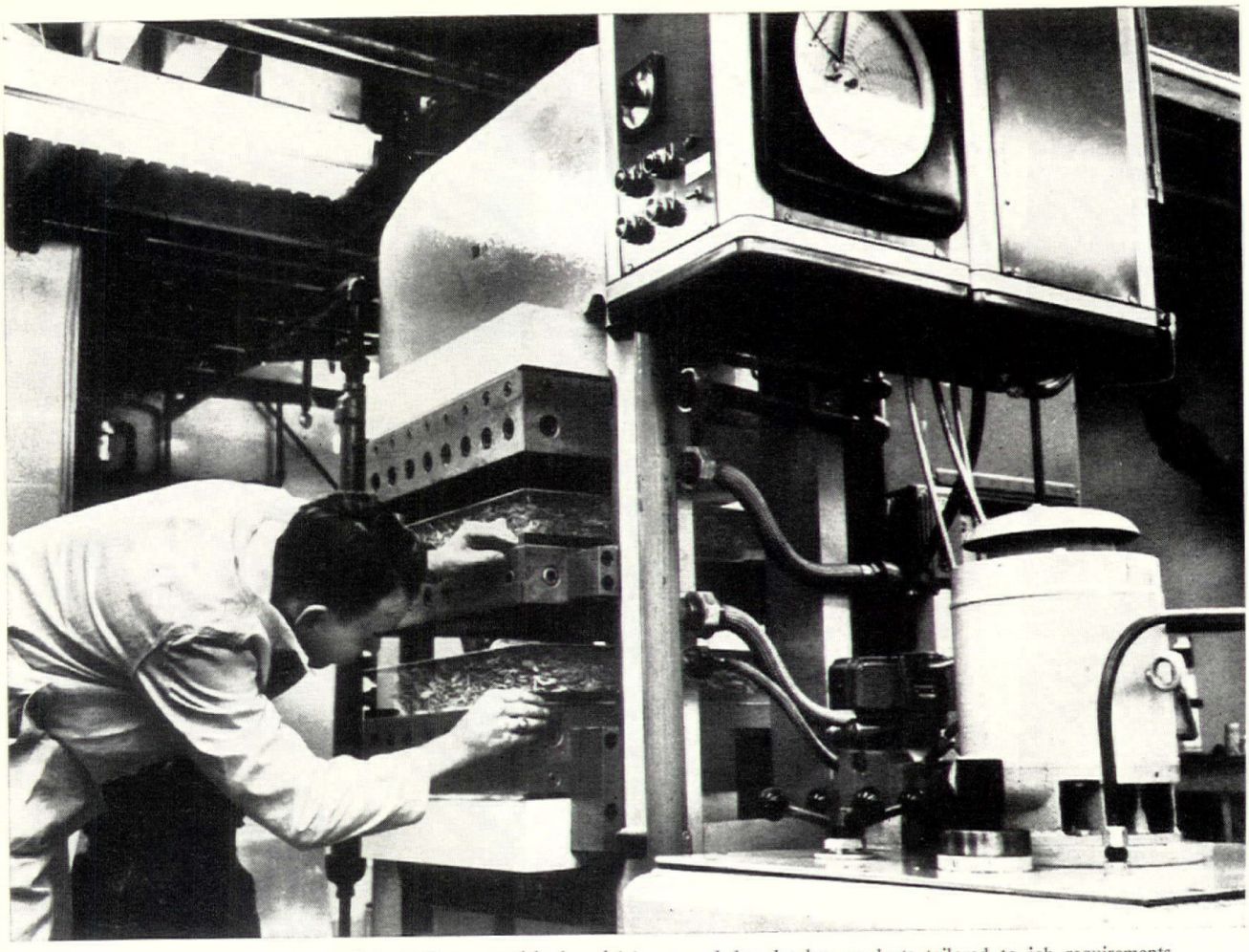
POTLATCH FORESTS, INC. Laminated 2x4s for framing (photo, center, right); laminated decking of three 1x5½s with center layer offset for t&g; Plylumber, a laminated 2′ x 16′ sheet for sheathing, flooring, decking; and laminated bevel siding with hardboard surface. *For full data, circle No. W3 on coupon, page 214.*



PAPER SURFACED low-grade boards can make excellent siding. Here, No. 3 pine boards were edge glued, overlayed with a phenolic impregnated kraft paper that lent strength, surface, water resistance.

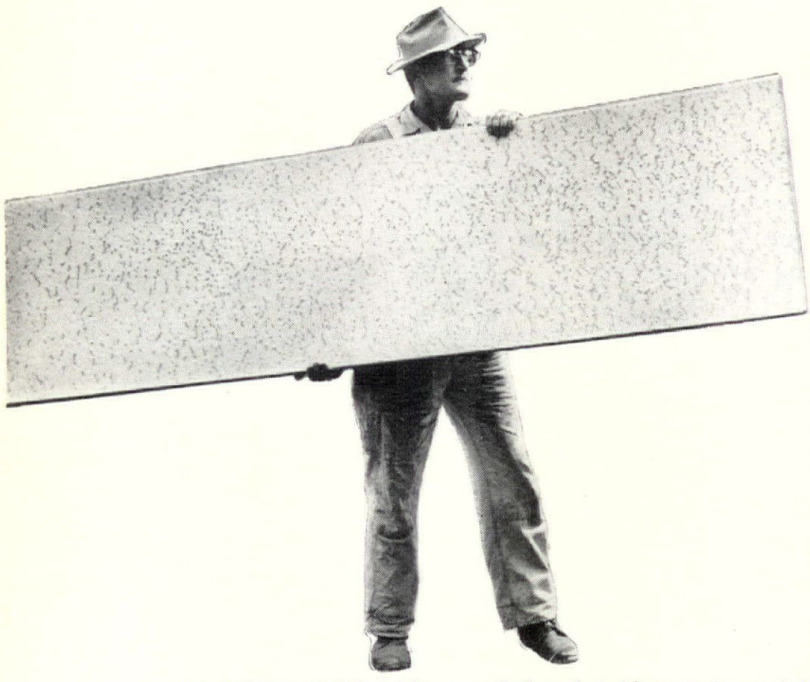
continued

WOOD



HYDRAULIC PRESS in West Virginia Pulp & Paper particle board laboratory helps develop products tailored to job requirements.

Wood is being converted into more versatile forms



BIG SHEETS of lightweight, acoustical roof decking can be carried by just one man. Multi-purpose decks speed insulation, and cut labor.

New hardboards, fiber boards, and particle boards—with new surfaces, better insulating properties, greater strength—are being developed and marketed every month. Such great progress has been made in this field of "man-made wood" that we are within sighting distance of a vast and exciting development: big, all-purpose structural panels.

Today's products can be made to any specification

Since all these boards "start from scratch"—either pulp or chips—they can be tailored to produce the qualities wanted for any application (see new products section below). The pulp or chips can be packed tightly to produce a strong board (and, lab tests show, particle boards can be nearly as strong as plywood of the same thickness). Pulp can be compressed lightly to produce a board with good insulating and acoustical properties.

Board can be produced with any variety of textured or decorative finishes either pressed in or applied as a surface veneer which can serve as a vapor barrier or a tough and waterproof exterior face. It can be produced with a smooth finish (not subject to grain raise like plywood or regular lumber) that takes a good paint film; and with a homogenous texture that cuts down warping. Most of these boards can be impregnated for dimensional stability. All of them have been proved by use in countless square feet of flooring, subflooring, siding, sheathing, paneling, and decking. So . . .

It is only a step further to molded wood. That step is to abandon the limiting concept of boards—instead think of the pulp or chips as a fluid material like concrete or plastic.

With relative ease, panels could now be extruded with built-in chases for wiring and plumbing. Further development could lead to one-piece panels with "pressed-in" connections, structural stiffening, insulating cores, tough weatherproof outside surfaces and decorative inside surfaces.

Right now, particle and fiber boards theoretically have the strength—and with "pressed-in" intermediate stiffeners could have the rigidity—to make possible panels up to 8′ wide. And technologists are working on glass fiber reinforcing (as in reinforced plastics) that would make such panels still stronger and stiffer.

If such panels were available, framing costs alone could be cut about $80 on an average house (ie, by the difference in cost between framing 2′ oc and 8′ oc).

With still further development, it is not absurd to imagine whole structural walls—needing no supplementary framing—pressed out in huge pieces of particle board or hardboard.

NEW PRODUCTS *made possible by today's new conversion processes include those listed below. For more data, use the special wood products coupon you will find on page 214.*

ARMSTRONG CORK CO. Pre-decorated hardboards in panels, planks. Fiberboard tiles. Embossed, printed. *For full data, circle No. W4.*

EDWARD HINES LUMBER CO. Basketweave, heather-design hardboards and striated panels, photo right. *For full data, circle No. W5.*

CELOTEX CORP. Hardboard deeply embossed in a random grain to simulate weathered wood. *For full data, circle No. W6.*

GEORGIA-PACIFIC. 20 specialty hardboards for interiors, exteriors. Prefinished, smooth both sides. *For full data, circle No. W7.*

MASONITE CORP. Hardboard panels in walnut, weathered finishes, plain or random-grooved. *For full data, circle No. W8.*

ABITIBI CORP. Oak or walnut grain "plateboard", smooth one or two sides; random, vertically, or block-scored. *For full data, circle No. W9.*

FOREST FIBER PRODUCTS CO. Prefinished 3/8″ exterior siding sheets —4x4 up to 4x16, photo right. *For full data, circle No. W10.*

EVANS PRODUCTS CO. Acoustically-treated, decorative hardboard with corrugated or smooth surface. *For full data, circle No. W11.*

FIBERESIN PLASTICS CO. Satin-surfaced panel molded of wood fibers and thermosetting plastic resins. *For full data, circle No. W12.*

SIMPSON LOGGING CO. 3-in-1 roof deck, thermal insulation, interior finish, photo left. *For full data, circle No. W13.*

US GYPSUM. "Duron" hardboard 1/8″ and 3/16″ thicknesses for counters, cabinets. Smooth two sides. *For full data, check No. W14.*

PACIFIC PLYWOOD CO. Par-Wood underlayment; Par-Tex exterior siding; Par-Tile finish flooring. *For full data, circle No. W15.*

LONG-BELL DIV. Flakewood paneling made of crosscut flakes of selected species, photo right. *For full data, circle No. W16.*

PACK RIVER TREE FARM PRODS. "Tenex" decorative waferboard paneling made from eight species. *For full data, circle No. W17.*

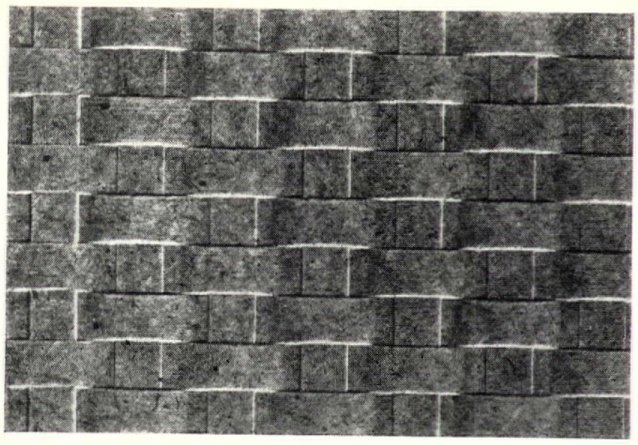
COLUMBIA HARDBOARD SALES CO. Underlayment panels of plasticized red cedar flakes, cross-laminated. *For full data, circle No. W18.*

CFI BOARDS. Finish flooring of hammermilled wood flakes, resin-bonded to density of 53 lbs per cu ft. *For full data, circle No W19.*

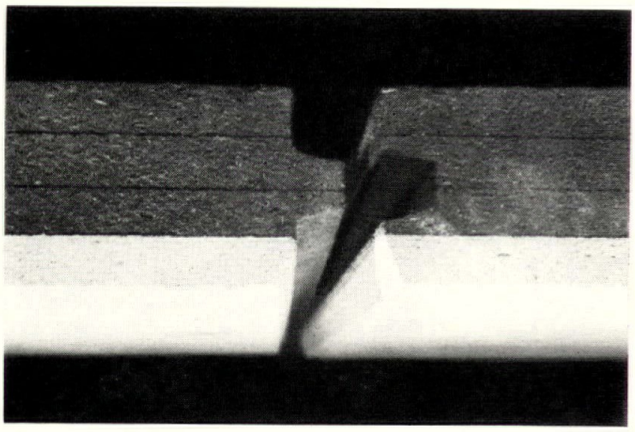
RODDIS PLYWOOD CORP. 3/8″ "Architectural Craftwall" with birch, walnut or oak veneer surface. *For full data, circle No. W20.*

NATIONAL STARCH PRODUCTS. Core stock, underlayment, decorative panels of New England white pine. *For full data, circle No. W21.*

WESTVACO. Wall panels decorated with phenolic paper overlays and wood veneers; also core stock. *For full data circle No W22.*



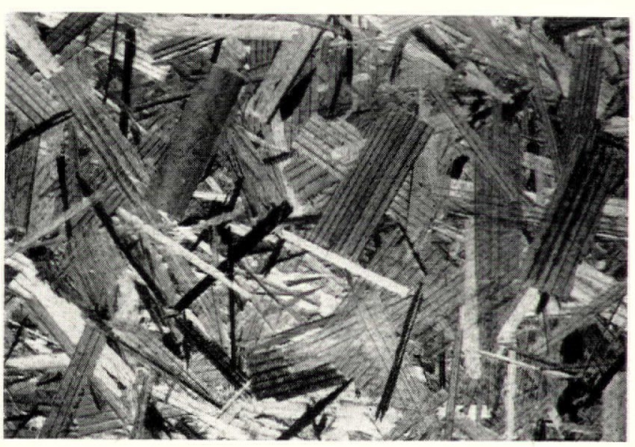
HARDBOARDS are becoming more and more decorative, with embossed patterns in weaves, striations, and simulated wood grains.



NEW ROOF DECKS combine sheathing surface and thermal insulation with acoustical interior finishes in easy-to-lock sections.

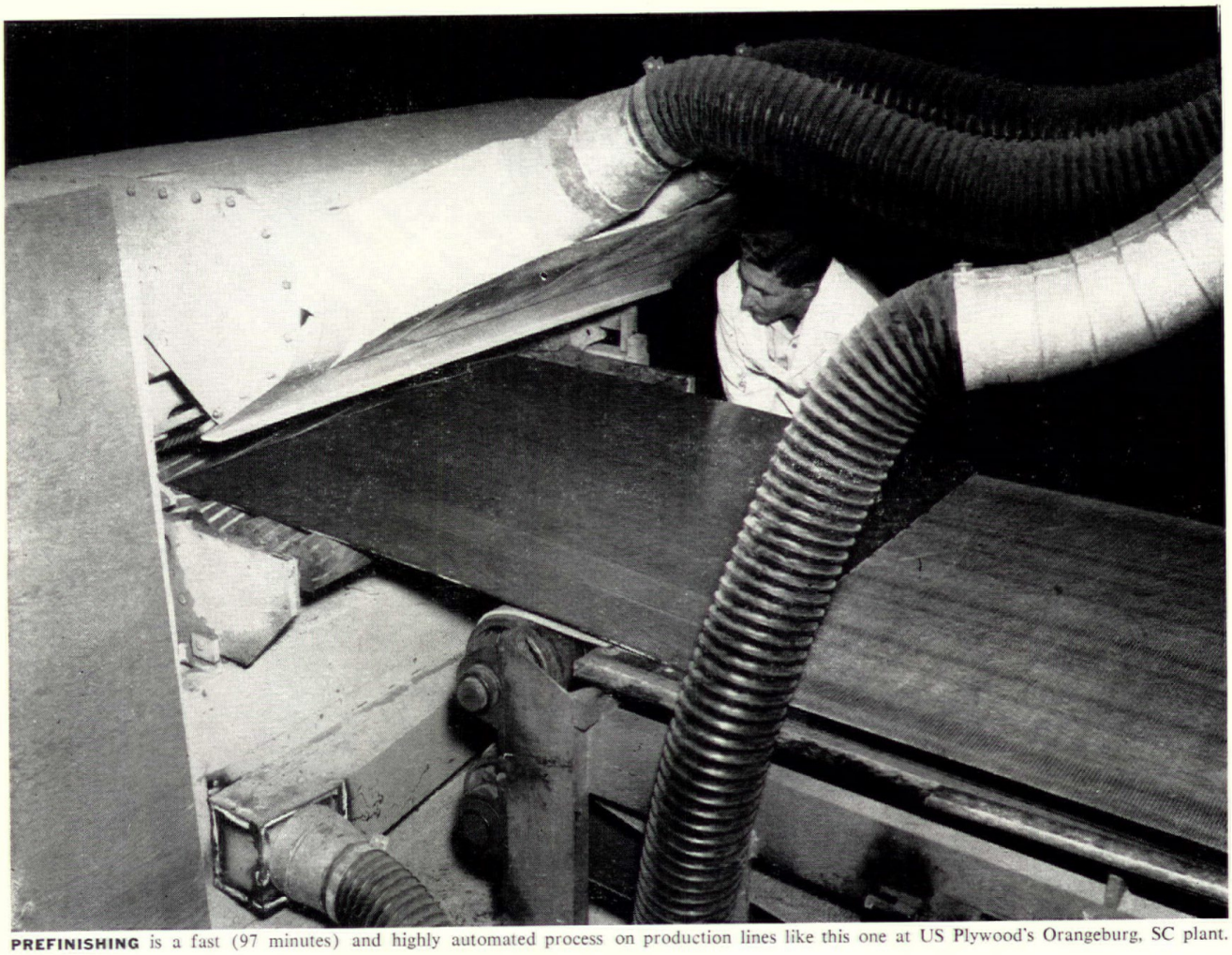


PREFINISHED HARDBOARD SIDINGS are now on the market. These smooth, surface-sealed panels make cutting, lifting, and nailing easy.



PARTICLE BOARDS are strong contenders in the decorative paneling field. Wood flakes and wafers are colorful, and have distinctive grain.

continued



PREFINISHING is a fast (97 minutes) and highly automated process on production lines like this one at US Plywood's Orangeburg, SC plant.

New and better finishes are extending wood's use



EVEN THE BATHROOM can be paneled with wood today, thanks to clear plastic finishes which seal out steam, show off wood grain.

The newest wood finishes are no longer just surface coatings —they actually penetrate deep into the wood. Some give wood a surface as handsome as a hand-rubbed finish; others give wood a surface tough enough to be used anywhere in the house (see photo left).

Burnishing produces smoothest known wood surface

A new process, developed by General Plywood, mechanically burnishes wood to a high gloss that takes less paint to cover, is smoother than any sanded surface, and inhibits paint checking caused by grain raise. In the process wood is passed through rolls which actually "iron out" the wood fibers under the heat of friction and compression. Small amounts of plastic are added which unite with the cellulose and make the new surface more uniform. Doors, siding, paneling and roof decking can be treated this way.

Decalcomanias have come to the finishing field

One of the most revolutionary finishing developments is the Sorg Paper Co's new process which uses vinyl decals. Finely sanded and sealed panels are given a clear adhesive coat with a knife spreader, and then a vinyl film is fixed to the surface. The resultant finish will resist just about anything but flame or severe abrasion.

Vinyl overlays are also being used experimentally in floor-

ing. A strong vinyl could be placed over fine veneers (like US Plywood's Flexwood) to make very durable specialty flooring.

Plastic's durability is revolutionizing finishes

Perhaps the toughest new floor finishes are the urea-formaldehyde formulations for parquet blocks. The urea makes a tough high gloss that will stand up under severe service.

Polyester and polyamine finishes are now being used for kitchen cabinets (by Coppes) because they keep moisture out of the wood. (Experiments also show that the polyester kills any fungus mold when it is applied to wood.)

New acrylics and cellulose acetate butyrate finishes for paneling have better resistance to ultra-violet deterioration and better color stability than common lacquers.

In general, clear prefinishing is being improved by two new techniques: 1) Flow coating, which gives a more even coat than brushing or spraying, can either cover with less material or build a thick finish in fewer passes; and 2) Sealing and buffing methods that work sealer into the soft spring growth more effectively, checking grain raise.

NEW PRODUCTS *made possible by today's progress in the field of prefinishes include those listed below. For more data, use the special wood products coupon you will find on page 214.*

US PLYWOOD. Weldwood hardwood paneling. Lacquer surfacing applied by roller coaters to 11 wood species. "Weldtex" exterior grade Douglas Fir plywood. Firzite finish of penetrating oils dissolved in phenolic resin. *For full data, check No. W23.*

GEORGIA-PACIFIC. "Family-proof paneling." Plastic surfacing applied to 9 wood species. Photo left. *For full data, check No. W24.*

E L BRUCE CO. Laminated oak block flooring, photo right. Finish is polymerized linseed modified with alkyd resin. *For full data, check No. W25.*

GENERAL PLYWOOD CO. Paneling. Super Satin Surface is applied to panels. sss utilizes lignin in wood plus a penetrating additive to seal wood's surface. *For full data, check No. W26.*

OWENS-ILLINOIS. Hardwood paneling. Acetate filler and tough urea finish is baked on panels. *For full data, check No. W27.*

WOOD-MOSAIC. Laminated oak block flooring. New urea finish claimed to be toughest on market. Photo opposite. *For full data, check No. W28.*

US PLYWOOD. Weldwood "Duraply." Exterior grade Douglas Fir plywood panel overlaid with Crezon—a Crown-Zellerbach overlay of phenolic resins, cellulose fibers. Photo right. *For full data, check No. W29.*

GEORGIA-PACIFIC. GPX Yellow Bevel Siding. Crezon overlay backed with laminated core and solid lumber. *For full data, check No. W30.*

RODDIS PLYWOOD CO. "Architectural Craftwall" paneling. Wood face veneers are bonded to particle-board core with urea adhesive. Sealed veneer backing. Photo right. *For full data, check No. W31.*

NICKEY BROS. Hardwood paneling. Vinyl decal overlays cover hardwood. Overlays in high gloss, satin or matte finish in colors and wood grain prints or in clear film. *For full data, check No. W32.*

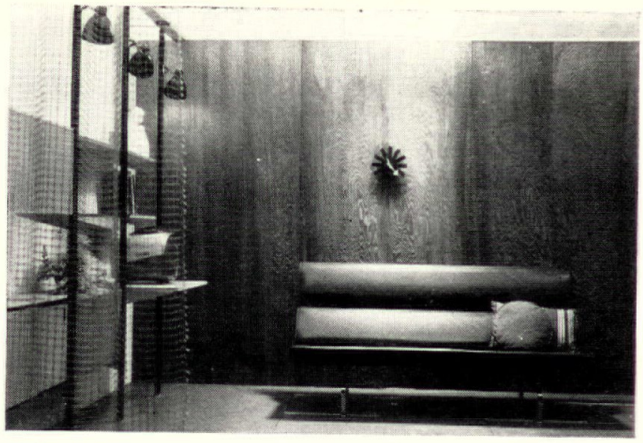
LONG-BELL DIV. "Ven-O-Wood" paneling. 1/40" thick decorative wood veneer face on particle-board core. *For full data, check No. W33.*

US PLYWOOD. "Sea Swirl," "Surfwood panels. Mechanical brushes etch out soft growth leaving natural grain patterns. "Planktex" panels. Grooves alternate with smooth grain. *For full data, check No. W34.*

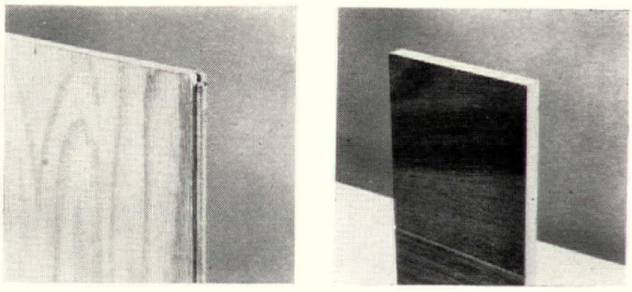
GEORGIA-PACIFIC. "Ripplewood" plywood paneling. Brushes bring up feathery wood grain. *For full data, check No. W35.*

SIMPSON LOGGING CO. "Shadowwood" redwood plywood. Rotary brushes clean away soft wood. Photo right. *For full data, check No. W36.*

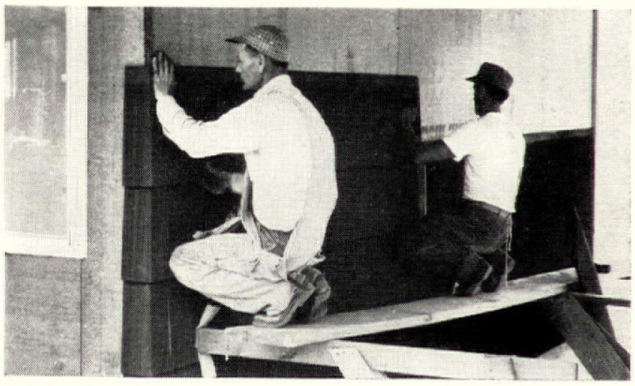
SHAKE-A-PLY. Cedar siding. Machine-grooved shakes with cedar undercoursing, phenolic resin-coated core. Photo right. *For full data, check No. W37.*



MORE NATURAL FINISHES are now possible since rotary brushes are used to etch away soft wood, bring up durable wood beneath.



WOOD FLOORING TILES, left, get longer life with new seal-type finishes. Veneer overlays, right, give particle boards brand new look.



STRIATED ALL-WEATHER SIDINGS get their texture from machine grooving. Mitred corners cut materials costs, assure a neat joint.



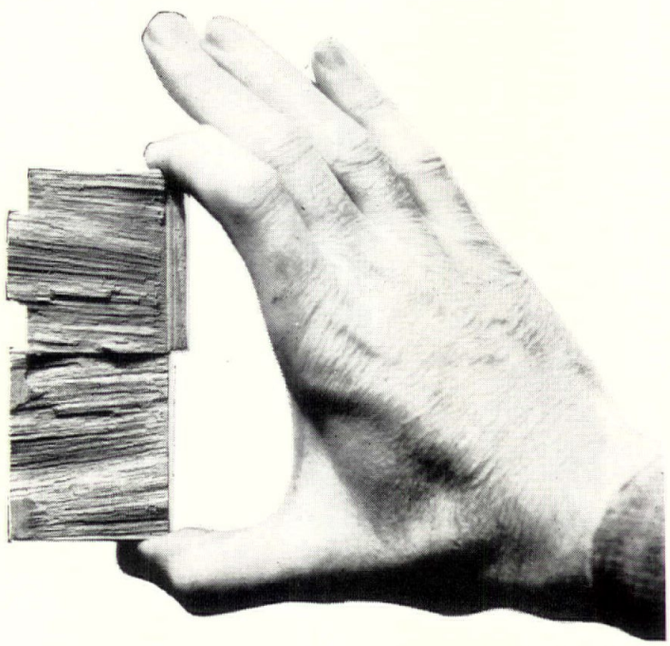
BIG PANELS finished with oils and phenolic resin for greater durability in outdoor use are coming on the market.

continued



BREAKTHROUGH in adhesives is development of new elastomers for installing hardwood (here, Wood Mosaic) to concrete.

New adhesives and connectors make wood easier to join



GLUE SHEAR TEST shows how test blocks break through the wood fibers, not the glue line—proving glue bond is stronger than wood.

In the wood technologist's mind, the best way to fasten wood to wood (or wood to anything, for that matter) is gluing. And many architects and builders already accept this idea. "I personally think the future of wood is going to be in bonding . . . an entirely glued structure," said Architect Charles Goodman at a recent seminar for architects held by the National Lumber Manufacturers Assn.

Adhesives' basic advantages are: they do not reduce the strength of the wood member itself, as a mechanical fastener does, and they bond every fiber so there is no slippage. Even the newest mechanical fastener, the "fishbone" shown at right, develops its extraordinary strength through the glue bond between the insert and the saw kerf in the panel.

Glue has revolutionized wood technology

The introduction of phenol resorcinal glues during World War II gave adhesives an important place in home building.

These glues which set at room temperature have great strength and good moisture resistance. The ability to set at room temperature is not only important to builders, who are unlikely to have hot presses, but also to big fabricators—huge laminated timbers cannot be heated to cure a glue bond without danger of bursting. But there are still disadvantages to the resorcinols—they won't set below 70°F and they won't fill gaps.

What builders and fabricators need is an adhesive that can be easily stored, applied and machined; that is completely resistant to moisture, temperature (up to 200-300F), acids and alkalies; that will gap fill and not shrink or craze in curing; that has a high film strength; that will cure at ordinary temperatures with contact pressure; and that will cure immediately or slowly through the use of various catalysts.

Just such a miracle adhesive may be in the offing

Epoxies are already close to it, and chemists feel the remaining problems can be solved within five years. Recent developments in amine curing compounds have given the epoxies an unlimited pot life. They can withstand any temperature that would exist in a house; their shear strength is very high (up to 5,000 psi); and they cure at room temperature with contact pressure. But their big trouble is cost and their little trouble is that they haven't enough moisture resistance and they don't gap fill well enough.

Some chemists feel that the urea family of resins is the dark horse in the glue race. Ureas are now good only for interior use where the temperature cannot get too high. (Current ureas are not recommended for glue-nail trusses since temperatures under the roof can get up to 160F.) But ureas are cheap and chemists are finding more new things about them every day.

Ureas and polyvinyl (thermoplastic adhesives introduced after the war) can be combined into a glue with only one major drawback: shear strengths are not yet high enough for structural use.

Research is cutting the high cost of gluing

One development is a new process for "stretching" adhesive by putting air bubbles in it. This mechanical foaming uses air strictly as an extender. Foamed adhesives do not get down into the material where they are not needed, they cover rough surfaces better, and they cure faster.

In another still experimental cost-cutting development, tree bark—once strictly a waste item—is used to make low-cost weatherproof adhesives that can be used wherever a phenol is used.

There is big news in mechanical fasteners too

The "fishbone" connector (shown at the right) is probably the most revolutionary connecting device since the development of the split-ring in the 1930's. The "fishbone" has four important advantages:

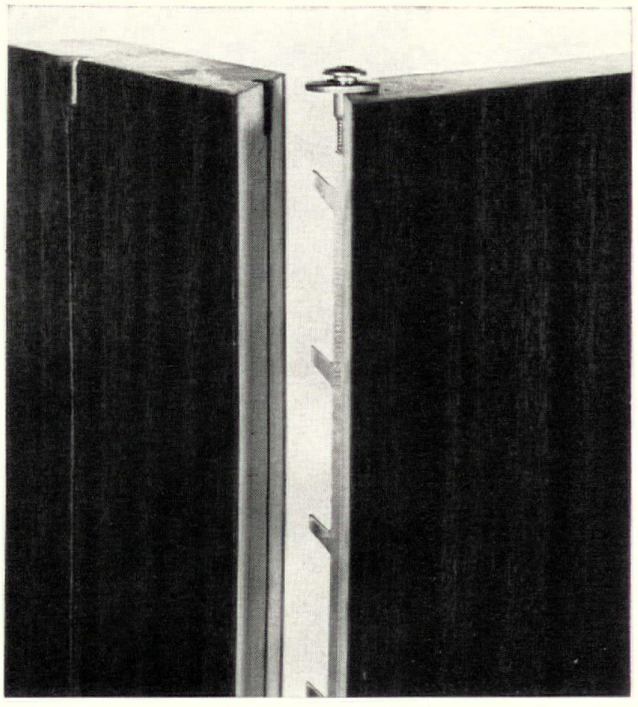
1) It forms an instantaneous continuous connection the full height, width or length of pieces to be joined.

2) The only tool needed to make the connection is a screwdriver, and the connection is as strong as the panel itself.

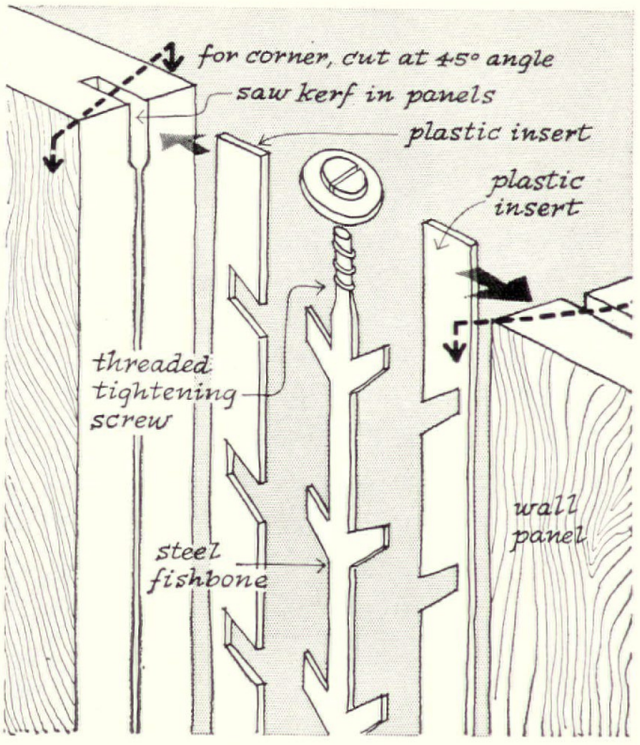
3) At right angle intersections, no unfinished edges show since joining edges can be beveled to 45 degrees. (This means that no finishing need be done in the field.)

4) Structures made with these connectors can be taken down any number of times and re-erected with only a screwdriver.

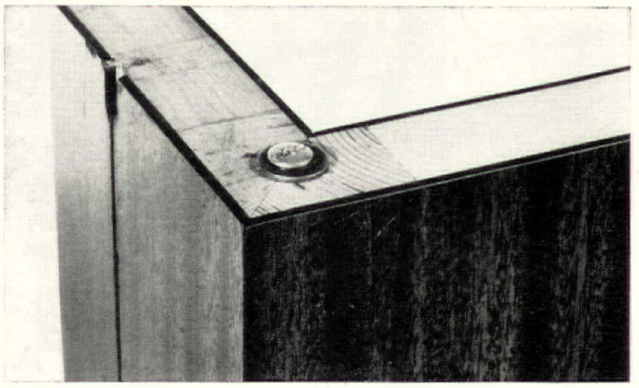
The developer (see new product listing below) offers the new connector as part of a panel system, is expected to license the connector itself to other manufacturers.



NEW STEEL FISHBONE connector, already in place on one panel edge, is moved into kerf in adjoining panel. Screw tightens joint.



SCHEMATIC shows how impregnated inserts are glued into saw kerfs in panel edges. Fishbone spines draw up on notches in insert.



PREFINISHED PANELS connected with fishbone connector will cost around $1.20 a sq ft. Note beveled right angle with no exposed edges.

NEW PRODUCTS

ADHESIVES. Most of the new glues are made to specification to fit particular applications. For information on your particular gluing problems, you should communicate with producers like DuPont, Minnesota Mining, Borden, Eastman Chemical, Monsanto, and Dow.

PANEL CORP OF AMERICA. Fishbone connector and panel system. Panels come in variety of finishes and cores; fireproofed. *For full data, circle No. W38 on special wood products coupon, p. 214.*

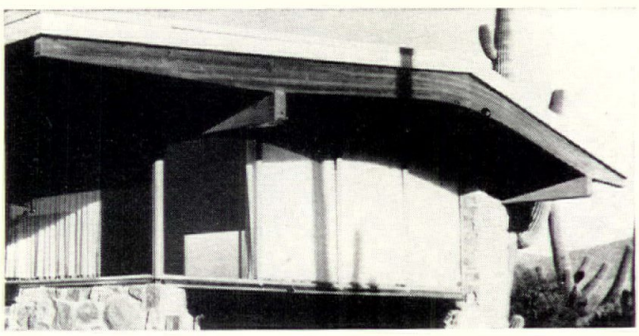
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WOOD



HUGE ARCH dramatizes new technology of wood structures. Laminated of southern pine, arch spans 247′, is 8 stories high at crown.

Wood's strength is being used more effectively



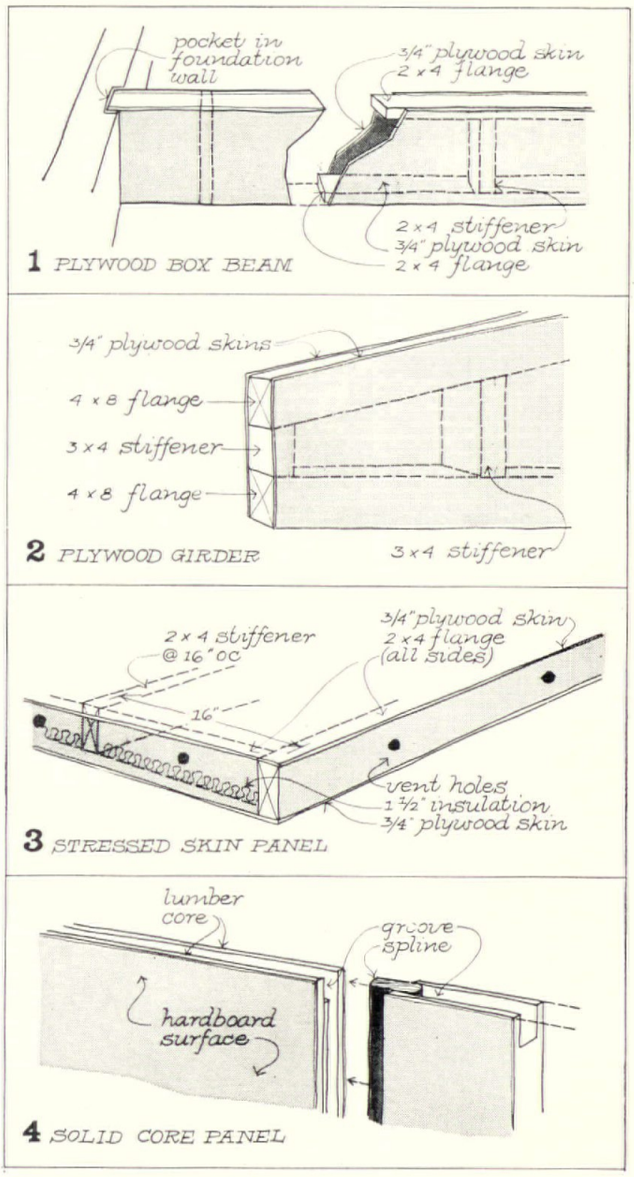
LAMINATED ROOF BEAMS on this house are 42′ long, 14⅝″ deep. They were fabricated by Rilco. Architect: Joe Salyers, Tucson.

The improvement in adhesives freed wood technologists to embark on a far-reaching field of research: the development of new wood structural elements. It won't be long before all components shown here will be on the market in stock sizes. They utilize the structural behavior of wood to its fullest—strength (and mass of material) is provided only where strength is needed.

Item: Glue laminated beams (photos here and p 122) can be fabricated with haunches and curves that make them stronger than straight beams. These built-up beams could, in theory, be prestressed to make them even stronger. And tensioned steel wires, a layer of glass roving, or a heavy ply of oak or hickory may soon be used to cut sizes below those called for by fir stress ratings.

Item: Box beams and girders (top photos, right) already being fabricated are much lighter than solid members required for the same load and span. They utilize the full diaphragmatic strength of plywood (ie, its ability to handle stresses in any direction in its own plane). These new beams suggest a future floor system made of a series of Ts—the tops of the Ts being the floor and the legs of the Ts being stiffeners that replace conventional joists.

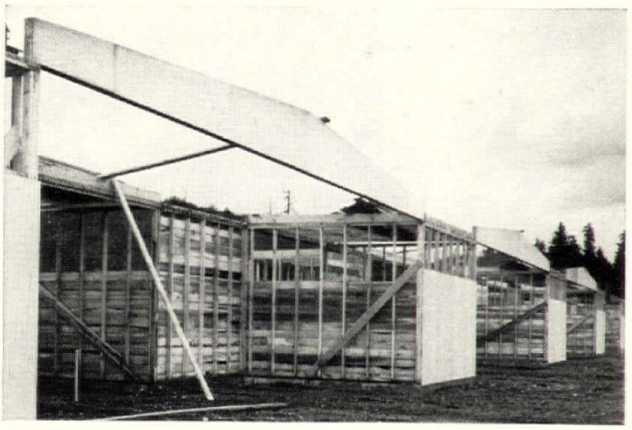
Item: Stress skin panels (lower photos, right) are now being used for floors, walls and roofs—again because the diaphragmatic action of plywood reduces the amount of lumber required. Logical future development: floor panels with top faces of oak or other hardwood that could serve as finish floor.



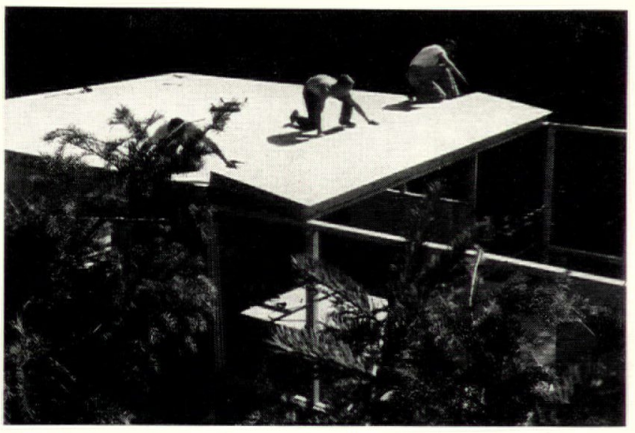
DETAILS of box beam, girder and two stress-skin panels (top to bottom above and photos at right) show how skin of structural element gives the member its greatest strength. In each, the skin is kept from buckling under the load by stiffeners or solid core inside.



PLYWOOD BOX BEAMS used 4′ o c in this crawl space house cost 75¢ per linear foot, reports Builder Bob Kronenberg, Hinsdale, Ill.



PLYWOOD ROOF GIRDERS for this small hangar are 40′ long, 3′ deep in center, cost $105.52 each. Design load: 375 lbs per ft.



STRESS-SKIN PANELS form roof, walls and floor in 20′ x 40′ house erected by five men in 7½ hours. Architect: Edward L Cushman.



NEW SOLID CORE PANELS, joined by spline in edge grooves, form structural wall said to cost less than frame construction.

NEW PRODUCTS *made possible by today's technology include those listed below. For more data, use the special wood products coupon you will find on page 214.*

PANELBILD SYSTEMS, INC. Plywood stressed skin flat and arch panels for floors, roof, and walls. *For full data, circle No. W 39.*

VAUGHAN MILLWORK CO. Solid lumber core panels for walls and roof (photo right). Available insulated. *For full data, circle No. W 40.*

continued

WOOD



HYPERBOLIC PARABOLOID roof segments dramatize the new shapes in structural elements. Architect of this pavilion is Edward Stone.

And now wood is even being used as a plastic material



FOLDED PAPER demonstrates the strength of "folded plate," shows how same section might sag when diaphragm strength is not used correctly.

As research engineers gain experience with glues and laminating, they are creating new kinds of wood structural elements which get their strength from the geometry of shapes—from their carefully engineered shape, not mass.

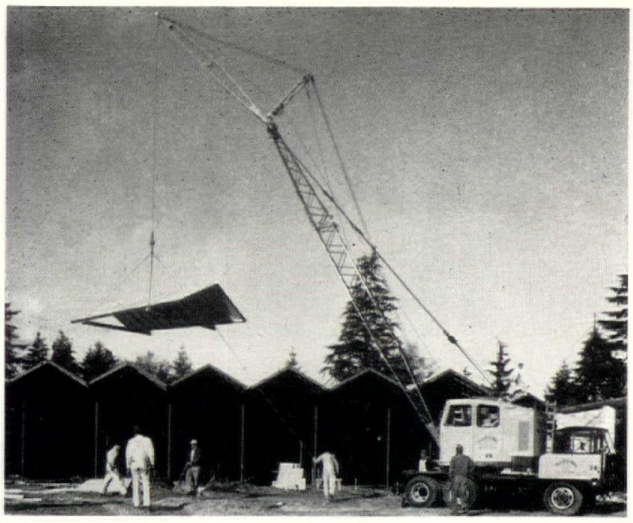
Wood's grain once made it a poor material for such structural elements, which had to be built of more homogenous materials (like steel and concrete) that could transfer stresses in any direction. But today wood grain—in cross-bonded laminations—is a vital element in handling stresses.

For instance, the hyperbolic roof components above are made up of four glued and nailed layers of plywood laid out so as to direct stresses to the long edges; which in turn are reinforced by 4x8s and 8" steel Ts to carry stresses.

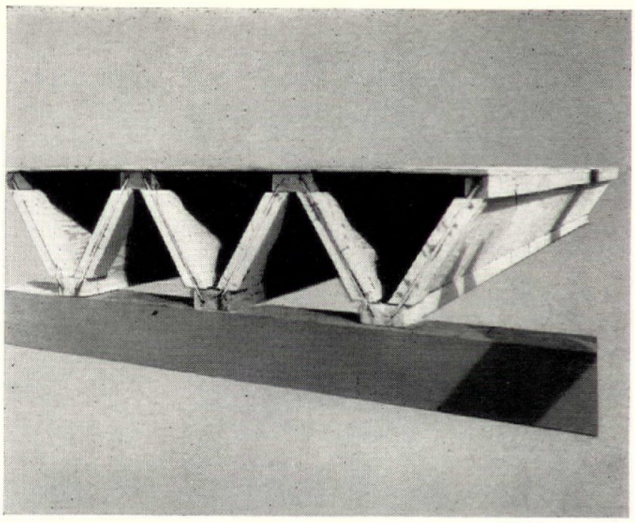
It is hard to look at any of the highly engineered structural shapes on these pages without realizing the exciting facts they symbolize: Through technology, wood is keeping pace with the imagination of advanced architectural designers. Wood also is keeping pace with the efforts of alert home builders to offer higher quality homes for less money. And wood is keeping pace with a fast-moving industry. /END

NEW PRODUCTS

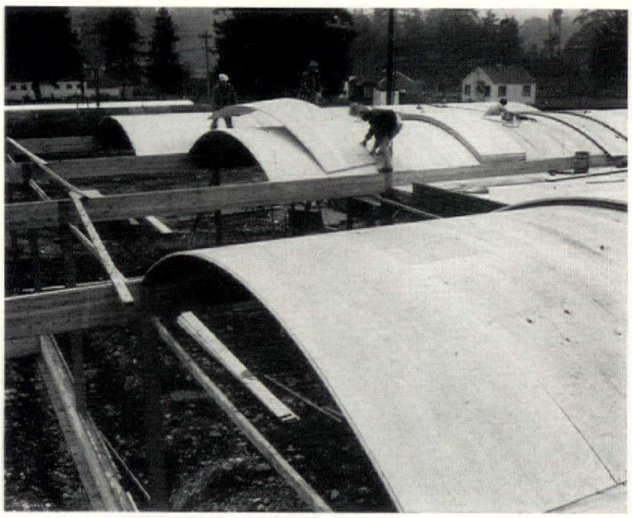
RILCO. Trough deck, prefabricated folded plate roof sections to 32'. *For full data, circle No. W 41 on special wood products coupon, p 214.*



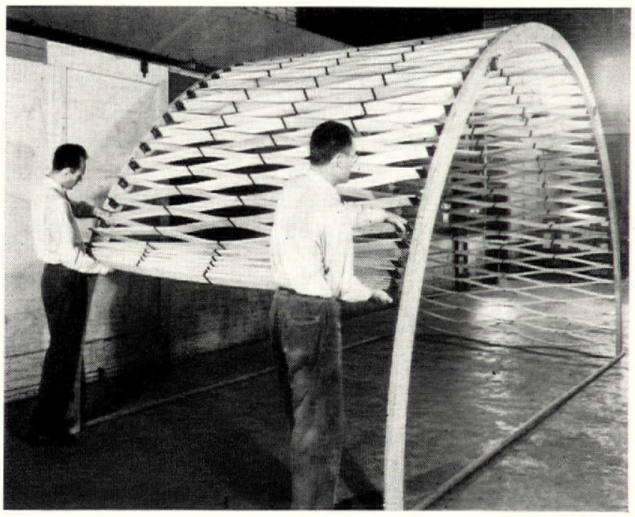
FOLDED PLATE ROOF is made up of 5'-7½" plates of plywood stiffened with dimension lumber. It costs only 80¢ per sq ft in place. Roof is supported on four laminated beams running the width of the building.



STRUCTURAL ROOF PANEL 4' wide (and up to 32' long) is made up of a series of plywood troughs. Plywood diaphragms are glued into saw kerfs in the 2 x 4 members.



BARREL VAULTS on this building span 16', are 1 5/16" thick by 4' wide, have ¾" honeycomb core and 1 x 3 core framing between 5/16" and ½" plywood skins. Cost: $1.10 per sq ft in place.

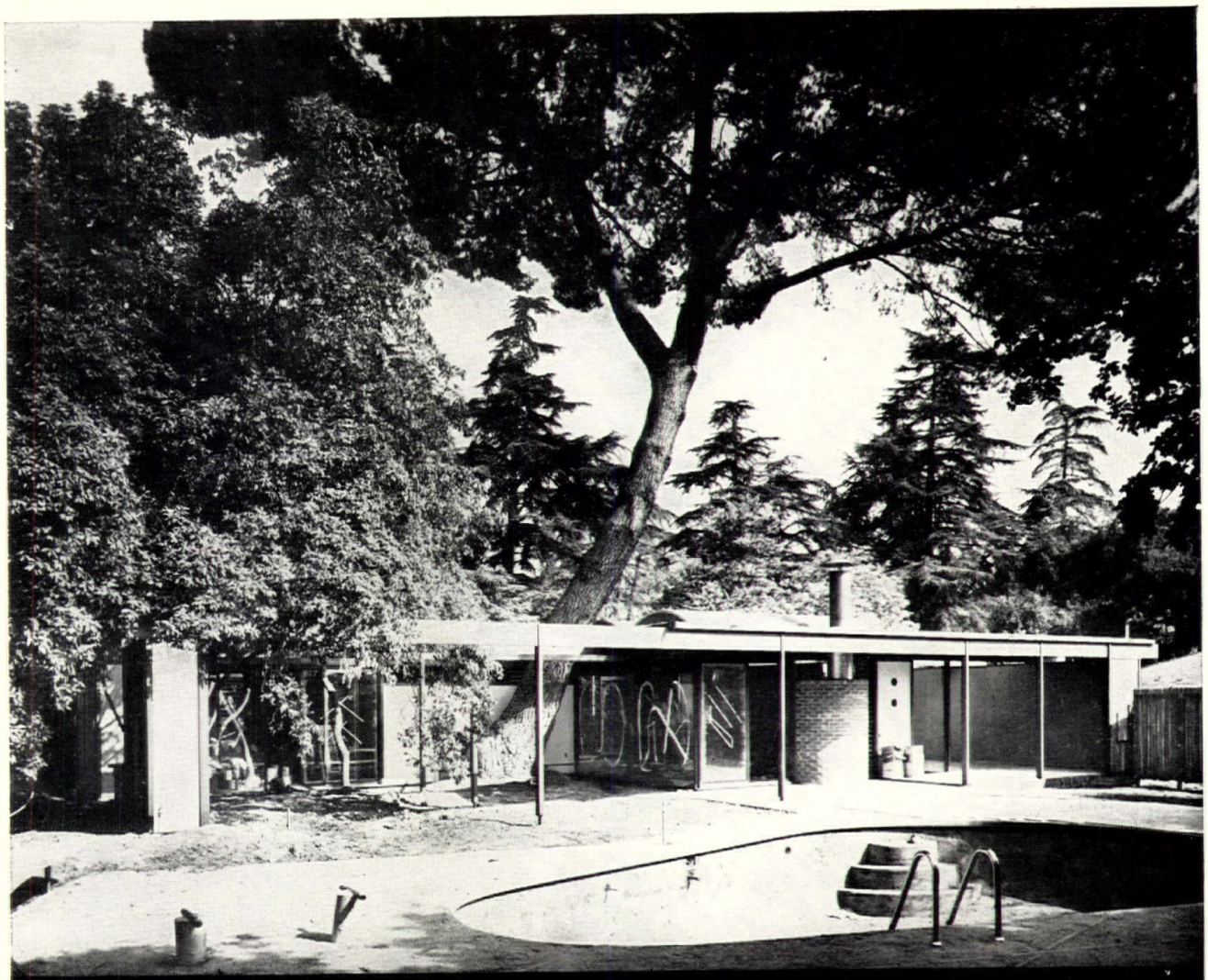


LAMINATED HARDWOOD slats form a lamella type structure. Three 1/16"-thick oak plies make up each slat. Structure will support 125 psf, weighs only 1½ psf, costs 25¢ a sq ft expanded. See below.

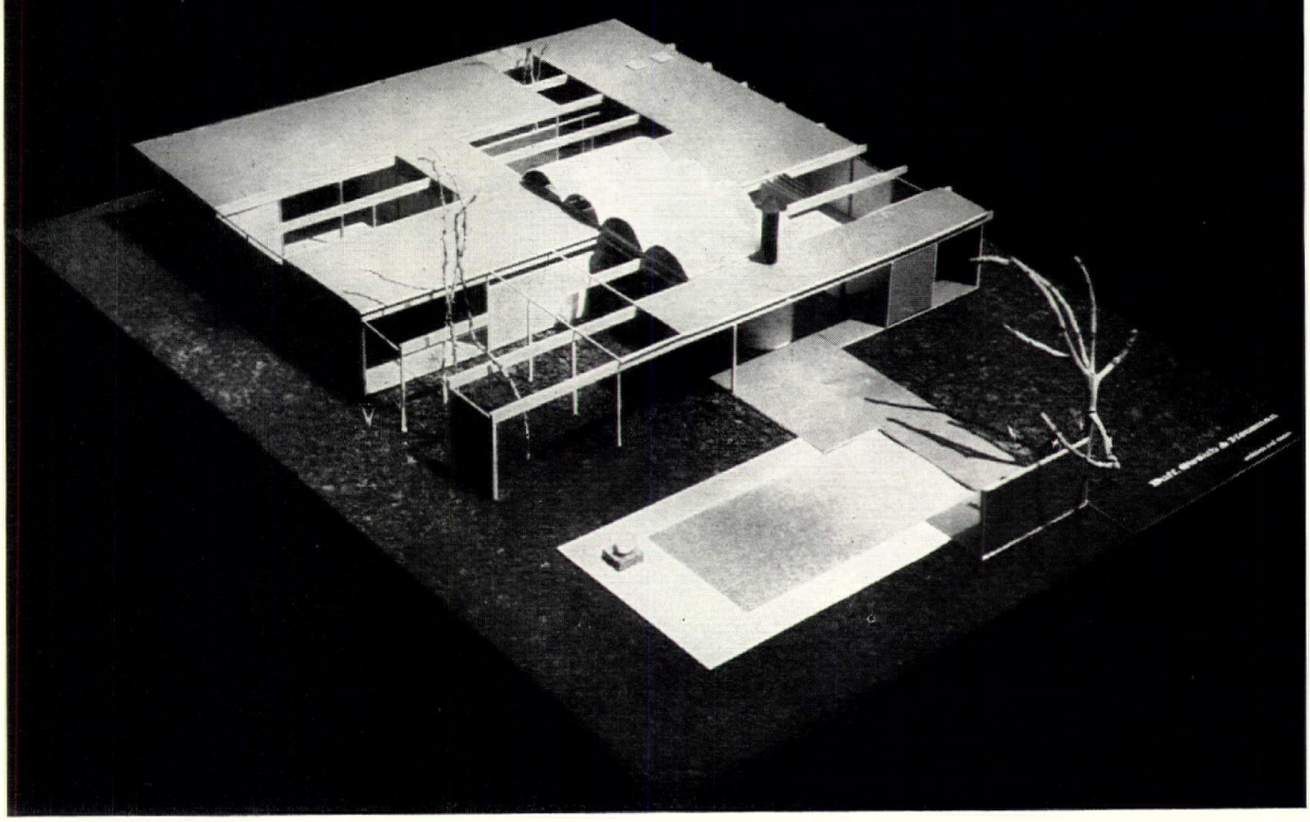


BUILDING MADE OF OAK SLAT LAMELLA, manufactured by Gamble Bros (Louisville) spans 30'. Telescoping jacks were used to raise roof sections. The lamella section, unexpanded, measures 9"x8'. When expanded it measures 94⅜" long (8' c to c framing members) and 8' wide. Wire stitching fastens the laminated slats together; slat ends fit into metal pockets on framing member. Unit is called a Gambella.

Photos: Art Adams



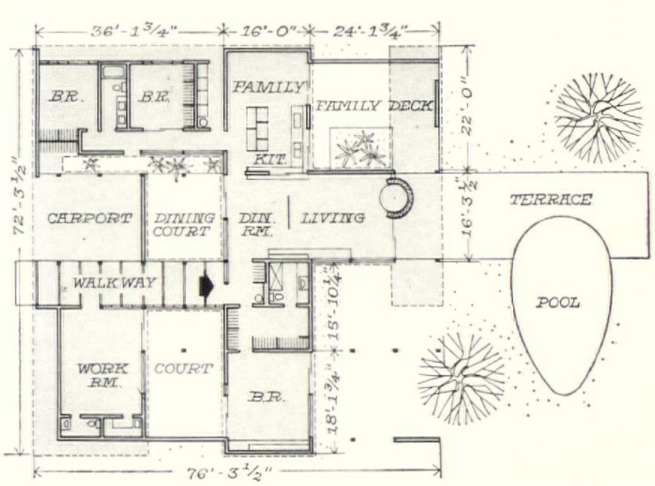
The design emphasizes the treatment of space—the relation of exterior and interior zones—that fabricated wood structural elements are able to produce economically.





LIVING ROOM in construction shows how barrel vaults, stressed skin panels, plywood box beams work with conventional framing.

This house is a statement of the art of building with wood today



OPEN COURTS in plan help zone the working area, living area, and two separate sleeping areas of the house. Shaded area is roofed.

"Lamination, pressure gluing, plastic impregnated surfaces, and the plywood structural elements they produce are giving new significance to one of our oldest materials—wood. These techniques show wood's rational use as part of our contemporary vocabulary of structural systems," says Carl Straub, partner in the firm of Buff, Straub & Hensman, architects, which designed this house in association with the owner, famed designer Saul Bass. The house is located in Whittier, Calif.

It is *Arts & Architecture's* Case Study House No. 20

The house is an elaborate but not costly study of the application—in contemporary architecture—of plywood box beams, stressed skin panels, and stressed skin barrel vaults with post-and-beam framing. It cost $36,000 plus supplier subsidies amounting to $5,000.

The architects served as general contractor, and the shop fabricated wood components were made by the Berkeley Plywood Co. The Douglas Fir Plywood Association helped sponsor the house in conjunction with *Arts & Architecture.*

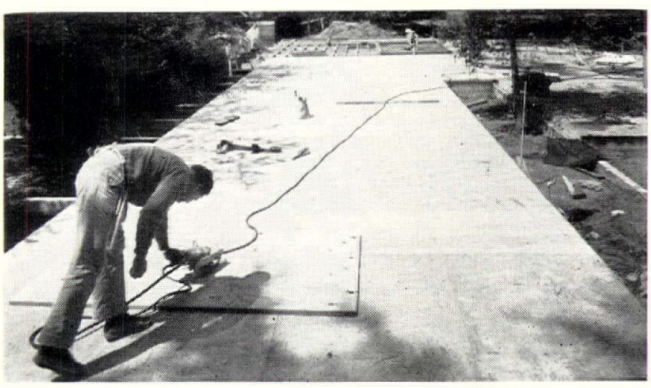
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Photos: Art Adams



PLYWOOD BOX BEAM is easily handled by two men. Beam is 12" deep, made of two 3/8" resin overlaid plywood skins nail-glued to 2x4s.

Building is fast and easy with new structural elements



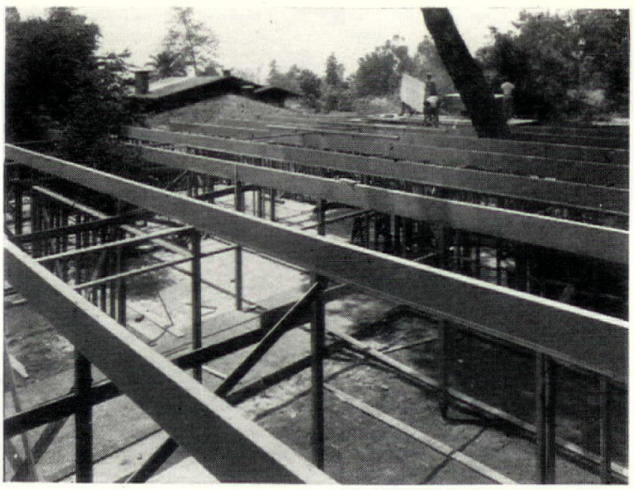
COMBINATION SUBFLOOR and underlayment is 1⅛" plywood over 4x4s on 4' centers with 2x4s between. Piers support the 4x4s.

The low in-place cost of the new components made a maximum of space available under the owner's budget. Cost figures show that the new structural elements make sense for production houses as well as custom houses like this.

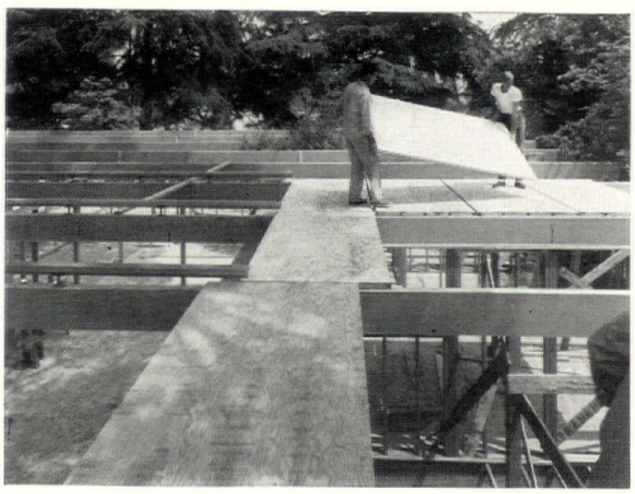
The basic structure is simple post-and-beam. Cost (in place) of the plywood box beams was $2 a running foot. Cost would have been $1.50 using plywood without the phenolic overlay used to get a good painting surface. For the spans involved (16' on 8' centers) there is no cheaper way to do the job.

The flat, insulated, stressed skin roof panels cost 40¢ a sq ft in place. This is comparable to low cost, 2" t&g decking without insulation. The painted plywood surface was considered more attractive than t&g in this design.

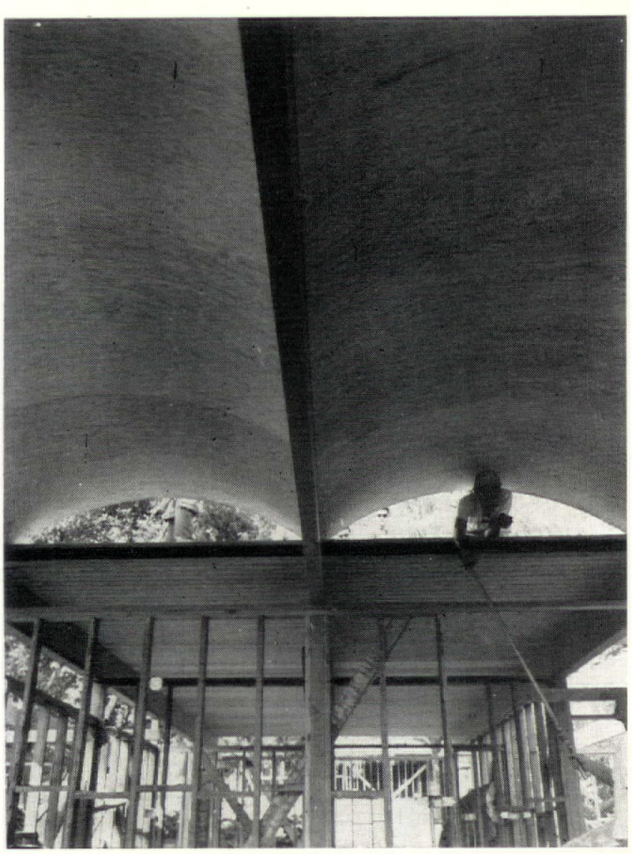
The barrel vaults cost only 75¢ a sq ft—like the flat panels were made in 2' and 4' widths, 8' and 12' lengths.



ROOF FRAMING SYSTEM is a series of parallel box beams in a flat plane supported by 4x4 posts. Partitions are 2x4 framed.



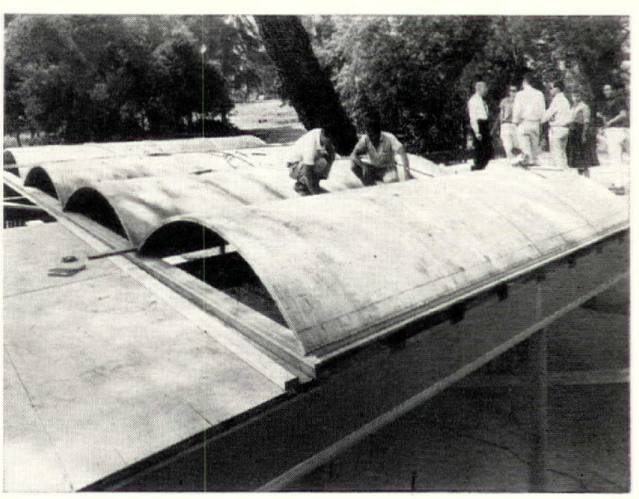
STRESSED SKIN PANELS for roof have 5/16″ upper, ¼″ lower plywood skins; 2x4 edge frames and stiffeners, 1½″ glass fiber insulation.



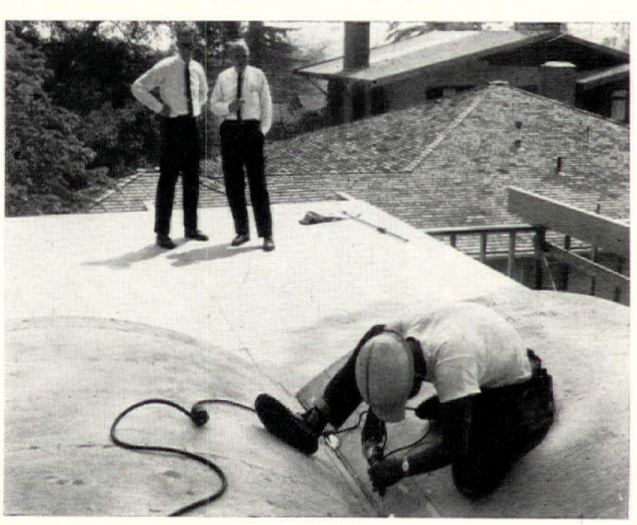
BARREL VAULTS over living room are made of the same materials as the stressed skin panels shown above.



FORK-LIFT was the only piece of big equipment on the job—all of the big wood structural members are light enough to be man-handled easily.



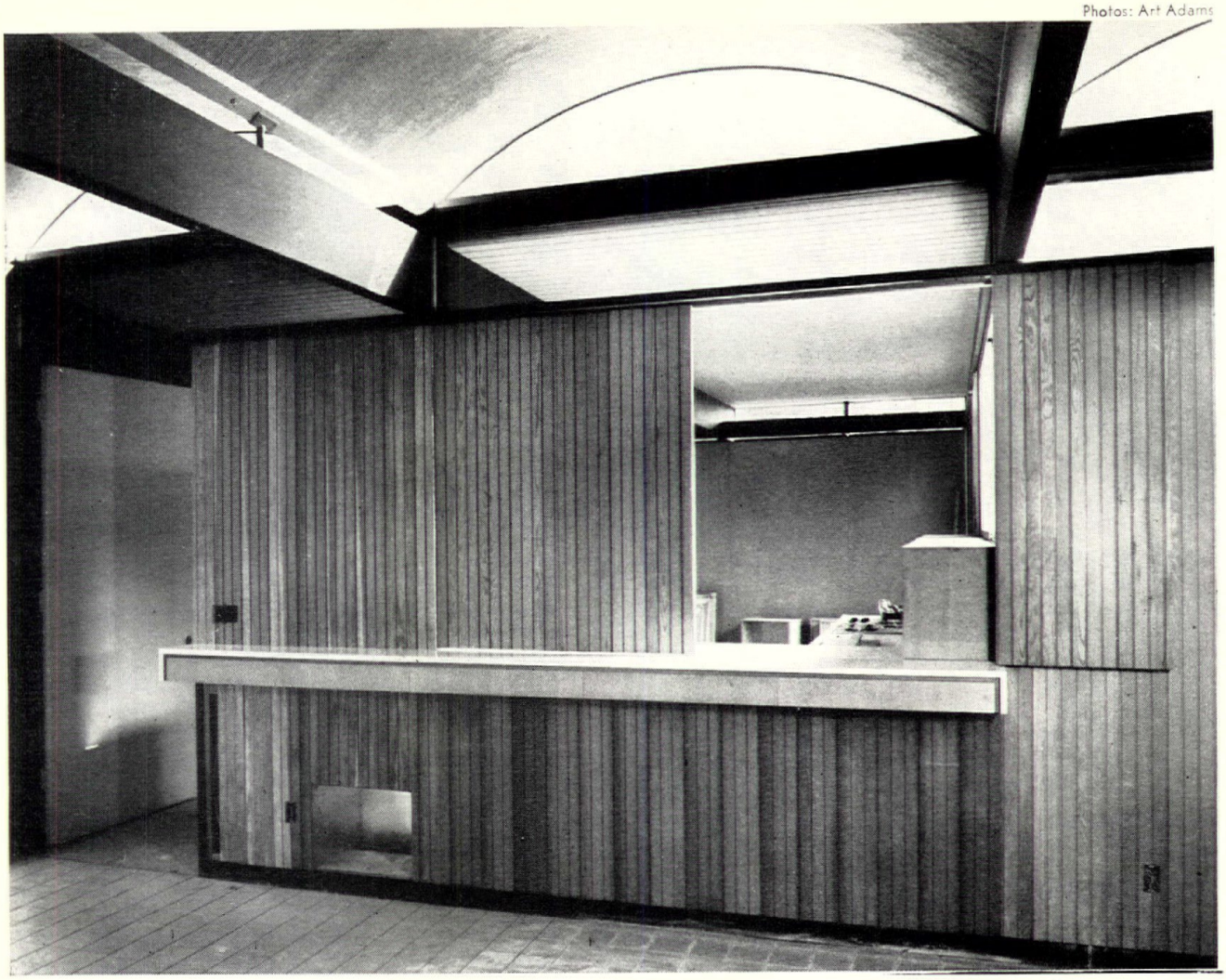
OPEN ENDS of the barrel vaults over the living room will get fixed glass, so from inside they give the same high open feeling as clerestories.



HOLES DRILLED in edges of barrel vaults position 16d nails, prevent splitting when vaults are nailed to supporting beam.

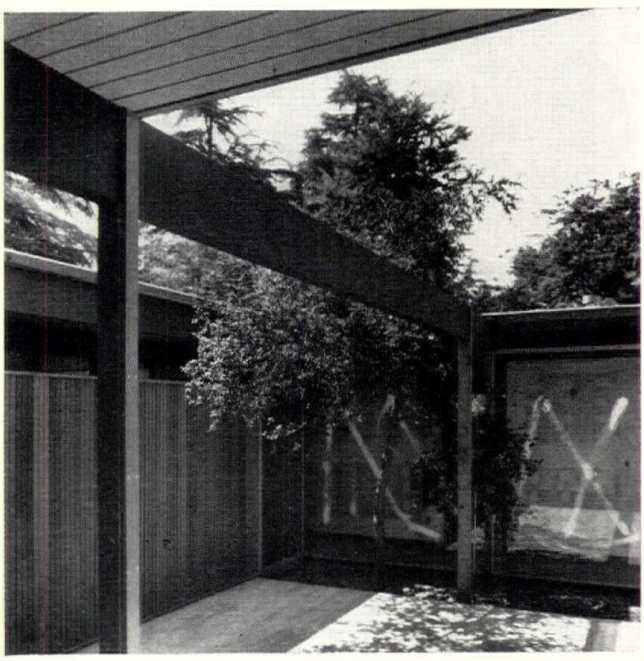
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Photos: Art Adams



KITCHEN pass-through is framed in vertically grooved plywood. Vaults rest on chamfered beam, in turn suppored on metal brackets on beam.

Here is wood used with the precision and clarity of advanced design

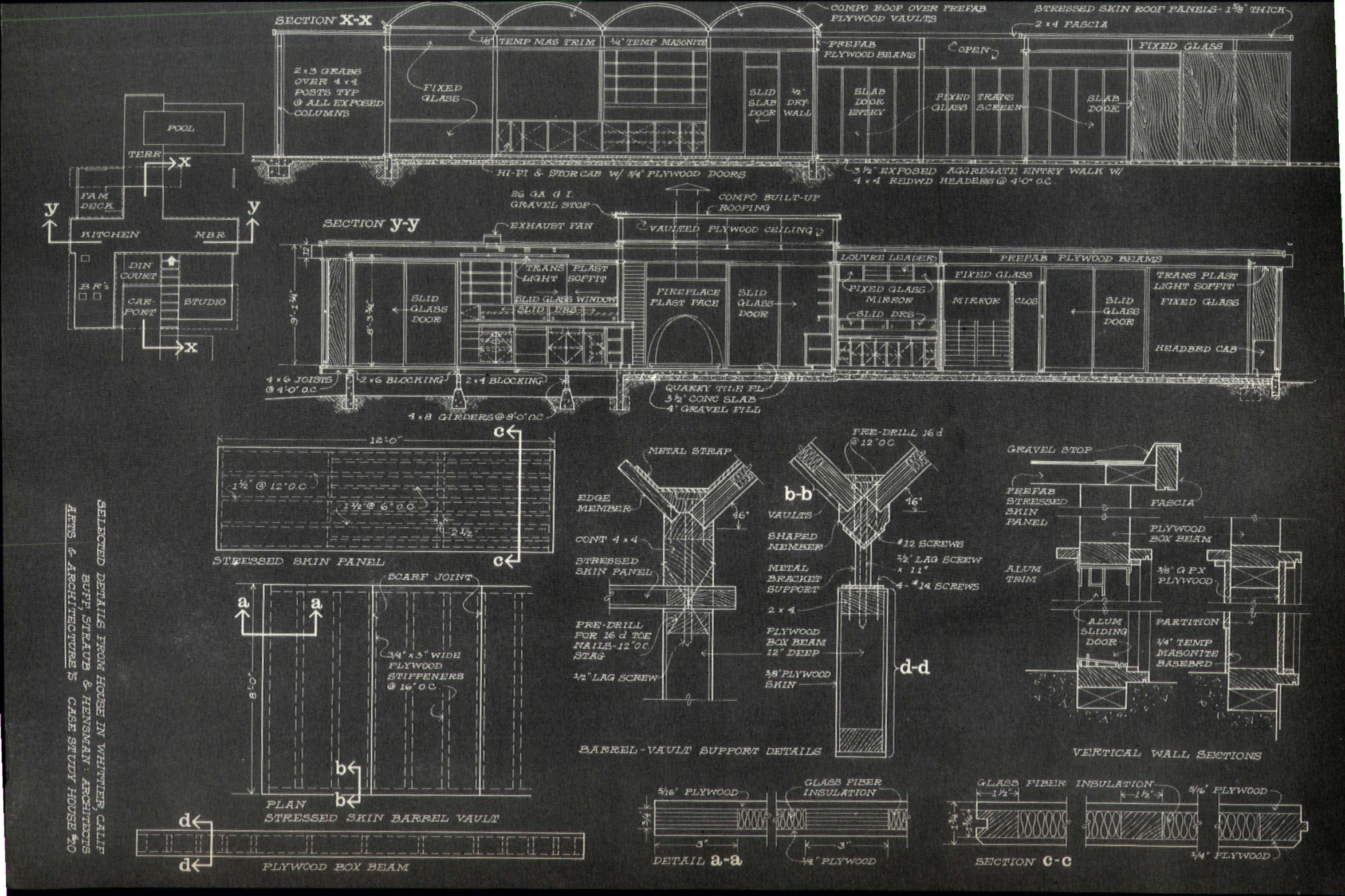


DINING COURT, in center of house, is enclosed by glass and grooved plywood. Floor here and in living area is quarry tile over concrete slab.

The wood structural elements and the interior and exterior paneling not only demonstrate their economy in this house, but also show that even the look of wood is changing to meet the demands of contemporary architecture. The most noticeable thing about the house is its clean lines, almost spare treatment of planes and spaces. The house does not necessarily say "wood", it says "design"—design that enriches wood and assures it a place in the homes of tomorrow./ END



CARPORT AND ENTRY show how grooved plywood (left) and resin overlayed plywood (right) were used on exterior.



SELECTED DETAILS FROM HOUSE IN WHITTIER, CALIF
BUFF, STRAUB & HENSMAN: ARCHITECTS
ARTS & ARCHITECTURE'S CASE STUDY HOUSE #20

We'll have to wait a little longer for AN AMERICAN STANDARD for Home Building Codes

Here is what happened at the American Standards Association Conference September 9 to consider the home building industry's request for a uniform American Standard for Residential Construction that could be incorporated in all building codes from coast to coast.

All the important trade associations and committees concerned with the design, construction, financing, and sale of houses had joined in asking such a standard to stop the $1-billion-a-year waste imposed on home building by the nation's chaos of 2,000 conflicting and often archaic local building codes. In this request they were joined by HOUSE & HOME, by the American Council to Improve Our Neighborhoods (ACTION), by the Building Research Institute, and by the Building Research Advisory Board.

1. The conference brought out "the largest gathering of groups interested in home building ever to assemble in one room". Eighty-three organizations sent more than 120 representatives to participate.

2. The discussions more than justified columnist Sylvia Porter's forecast *(see opposite page)* that: "The hearing may be rough, for groups profiting from code confusion may put up a stiff fight to prevent code standardization."

3. Sponsors of the three regional model codes got together to present a united front against the development of an American Standard for nation-wide use through ASA procedures, but the New York State Code Commission and the New Jersey State Code Commission strongly supported the proposal. Sponsors of the Fire Underwriters' code took a neutral position.

4. When the proposal was put to a vote a substantial majority of those casting a ballot voted "yes". Among these affirmative voters were all the big trade associations in the home building industry and all the public interest groups whose representatives were in a position to vote, including ACTION, the American Legion, the American Municipal Association, the International City Managers' Association, the Consumers' Union, and the Urban League.

In opposition were the regional code sponsors, the Iron and Steel Institute, the AFL-CIO, and about half the small manufacturers' associations (three of these later asked to change their ballots).

The vote at the conference was 24 yes, 17 no, 27 not voting, and 15 asking to cast a ballot later by mail.

5. In a legislative body such a 62% yes vote might have prevailed, but ASA requires much more than a majority before undertaking a project. It requires such a consensus that general acceptance is



Builder
ERNIE ZERBLE
Chairman of the NAHB Code Committee and spark plug of this year's drive for Code Reform



Your Dollar

By Sylvia F. Porter

Did you know that the conflicting, wasteful and in many ways utterly obsolete local building codes in our country today add $1,000 to the average cost of building a house—and you, the buyer, pay every penny of that cost?

Did you know that for the same $1,000 wasted by chaotic and archaic codes, you could get close to 200 square feet more living space, or most of the appliances for a labor-saving kitchen, or year-round air conditioning plus complete thermal insulation, or a second bath plus a washer and dryer—or a price cut of $1,000 on the house?

Did you know that the waste per house multiplies out to more than $1,000,000,000 on the million plus houses being built in 1958—and since nearly a third of today's new homes are sold to veterans, it is the American veteran who is being soaked for over $300,000,000 a year?

Did you know that there are more than 2,000 different building codes in the United States—many codifying standards drawn up a half-century ago and many reflecting thinking that was obsolete 100 years ago?

Did you know that wasteful codes in New York City are a big reason it costs nearly $2,000 more to build a small house on Staten Island than to build the same house five miles away in Middletown, N. J., and wasteful codes in Pittsburgh are a major reason it costs $11,731 to build a house in Pittsburgh that would cost only $10,079 in Philadelphia?

Did you know that many requirements in local codes contribute nothing whatsoever to your safety or health but are planted and kept in the codes either to protect selfish industrial interests or to squelch competition?

Did you know that the sum of all the specific wastes involved in the codes is picayune compared with what could be saved if conflicting codes were not blocking the economies of nation-wide standardization and discouraging the efforts of builders and architects to develop new ways to build better for less?

* * *

The odds are you didn't know any of these facts—and yet every statistic and statement I've written here will be confirmed by responsible code experts, builders, architects, mortgage lenders, real estate brokers, etc.

There isn't an authority in or connected with the building field who doesn't recognize and admit how obsolete the majority of the local building codes are. There isn't an expert who doesn't realize that standardization of the codes is urgent and revision of even the best codes is imperative if the nation is to meet the challenge of the explosive homebuilding market of the '60s.

Yet, only now—after decades of talk but mighty little action—is there basis for solid hope that positive moves will be made to speed building code reform and standardization for homes.

For this coming Tuesday, Sept. 9, in New York City, the American Standards Assn. will hold a hearing for the first time on the desirability of divorcing the residential code reform movement completely from the problem of code reform for office buildings, factories, stores, etc., and of developing and approving American Standard construction requirements for one and two-family houses.

Before the ASA will come spokesmen for close to 100 organizations—representing the homebuilding industry, building code groups, trade and product associations, the public (American Council to Improve Our Neighborhoods, American Municipal Assn., etc.), labor and the federal government.

The hearing may be rough, for groups profiting from code confusion may put up a stiff fight to prevent code standardization.

But tremendous pressures for the reform are being developed among builders, architects, bankers, public organizations.

There is valid reason for belief we are about to witness a dramatic step forward in the building industry—a step that will mean great savings in the future to every buyer of a home.

* * *

It was back in May that Perry Prentice, editor and publisher of "House & Home," the largest publication in the building industry, set in motion the forces that will culminate next week in the ASA hearing by calling a two-day "round table" on how to get uniform, up-to-date residential code requirements.

It was at that "round table" that leaders of every segment of the home building industry and representatives of the public met for the first time with code officials to explore the problem. And it was that "round table" which developed the six point plan the ASA is about to consider.

There is so much more to this story and its potentialities are so important that I'll go into additional details tomorrow.



Your Dollar

By Sylvia F. Porter

"The most expensive thing about today's house is not its year-round air-conditioning system or its completely tiled bathroom or its almost automatic kitchen. The most expensive thing is the local building code under which the house must be built and that code's countless and often senseless, wasteful variances from sound national standards.

"These variances are thoroughly useless and add a good $1,000—or call it a bad $1,000—to the cost of even a small home.

"Even worse, they discourage progress in standardization and the development of mass-produced standard parts that would knock the bottom out of many homebuilding costs.

"We can't tolerate this sort of waste, particularly in this inflationary era. Never has the need for code reform been as urgent as today."

With these words to me, Perry Prentice, editor and publisher of "House & Home," explained the background of the powerful drive which has developed virtually overnight to get the American Standards Assn. to develop standards for the construction of one- and two-family houses.

* *

As I reported yesterday, the campaign was sparked last May when "House & Home," by far the largest publication in the building industry, called a two-day Round Table on residential code called a two-day "round table" on residential code reform. To that conference came 68 leaders of architects, bankers, savings institutions, real estate brokers, etc., and representatives of the public.

The participants pulled apart the $1,000 estimate of the waste due directly to chaotic and archaic codes. It is made up of a few dollars for extra weight of plumbing beyond what makes sense . . . Of a few more dollars for a worse than useless house trap on a waste line . . . Of a few more for metallic sheath[illegible] tric light wires when nonmetallic cable would do just as well and be cheaper . . . dollars for studs spaced on 16 inch centers when 24 inches would be more than strong enough . . . Of still more dollars for needlessly heavy subflooring . . .

The conferees agreed by an overwhelming majority that there is no excuse whatsoever for any plumbing code which exceeds the requirements of the National Plumbing Code.

They agreed that it is ridiculous for any construction code to exceed the requirements of the three model construction codes now in existence.

And so out of that conference came a six point program for reform, of which these three points are crucial:

¶If code reform is to get anywhere, the movement for reform of the residential code must be divorced from reform of the code for office buildings, factories, stores, etc.

¶The American Standards Assn. can act quickly by re-packaging into a single residential construction standard the almost identical construction requirements for one- and two-family houses now in the three model codes and the New York State code. The three codes are known as BOCA (Building Officials Conference of America), Southern and International.

¶The ASA should set up machinery for annual revision of the proposed standards, for the revolution in homebuilding materials and methods is coming so fast even the best code can be obsolete in a few years.

* * *

The ASA—founded in 1918 as a clearing house for the integration and coordination of standards and made up of 118 trade associations, technical societies and professional groups—is responding to the challenge.

This coming Tuesday, Sept. 9, in New York City, it is holding its first hearing on approving a unified standard for building of homes.

While there will be plenty of opposition—outspoken and subtle—from groups wanting to keep the conflicting local codes to protect their selfish industrial interests or to block competition from new products, the odds now are that the ASA will approve the reform.

For what is at stake is not just the immediate dollars-and-cents savings to buyers of new homes.

What is at stake is the great savings that can come over the years from the development of mass-produced standard parts and of better methods and materials for homebuilding.

Our best chance—maybe our only chance—for getting more house for less or at least some stability in homebuilding costs lies in reform of the local building codes.

assured. With the three big model codes so determined not to accept the proposal, ASA is hardly likely to feel that the "consensus" was broad enough to warrant its taking further action now.

But we will get what we want soon

Opponents of code uniformity cannot stand up much longer against the tremendous pressure of public opinion and industry opinion mobilized by the HOUSE & HOME Round Table report, by *American Builder*'s "Outrage" article, by *Practical Builder*'s report on "The Growing Battle With Codes and Building Officials," by the two Sylvia Porter columns reproduced above, by Stuart Chase's article reprinted in *Reader's Digest* and most particularly by the united front for code uniformity presented by all the industry associations who joined Editor Henry Luce in asking the American Standards Association to take action.

Even before the ASA conference the model code sponsors were moving fast to meet the home building industry requirements formulated at the HOUSE & HOME Round Table (H&H, July). Specifically:

1. The Southern Building Code Congress started work on a separate code for one- and two-family houses.
2. The Building Officials Conference of America started work on a special illustrated booklet for home building, bringing together on a few pages all the BOCA code requirements for the construction of one- and two-family dwellings, including its residential requirements for plumbing and wiring. (The International Conference of Building Officials already has an abridged code for light construction.)

And after the ASA conference:

1. The executive director of the Southern Building Code Congress suggested to HOUSE & HOME that perhaps his group could get together with the BOCA and International code sponsors to reconcile the residential code requirements "and then we could submit the result to ASA for acceptance as an American Standard."

continued

2. The director of codes and standards for the National Board of Fire Underwriters (sponsors of the Fire Underwriters' code) wrote HOUSE & HOME that his board "is ready to cooperate in any effort to coordinate building code requirements for one- and two-family dwellings."

3. The chairman of the BOCA Basic Code Committee wrote HOUSE & HOME that: "We at BOCA will undertake a study of the differences if any in the one- and two-family dwelling code requirements of the BOCA code, Uniform [International] code, and Southern code . . . and attempt to reconcile the differences and bring about agreement . . . The standardization of [these] requirements will help."

4. The executive secretary of BOCA told HOUSE & HOME that: "This ASA conference has brought the code groups closer and I believe it will make it easier for us to get together to agree on uniform standards."

5. Only the managing director of the International code group told HOUSE & HOME that he is standing pat.*

In other words, whether or not the American Standards Association takes action now looking to the development and validation of a uniform American Standard, it looks as if most of the model code groups will soon get together to translate their present not-quite-uniform requirements into a true national standard, so that architects, builders, lenders, and dealers can all get back of these model codes and press for the adoption of any one of them in every community from coast to coast.

*But in February 1945 he asked ASA to work out an exclusive cooperative program with his organization "because there is urgent need for national uniform building code requirements and nationally accepted technical standards which may be placed in effect through adoption by reference or publication in cities throughout the United States" and because "ASA is the recognized authority for developing technical standards." ASA turned down his proposal because it did not feel it could give such exclusive ASA recognition to a code on whose requirements only building officials (mostly in western states) could vote.

But if the codes are not coordinated soon...

then the home building industry's leaders are making plans to follow a different course. In that case the trade associations most directly concerned with better housing, including specifically the National Association of Home Builders and the United States Savings and Loan League, have decided to get together with other groups to pick which one of the model codes offers the best standard for residential construction—the best for the home buyer and the most usable and understandable for the industry. Then these associations, through their local organizations, plan to start urging cities and towns all over the country to adopt a local code based on this best of the model codes.

If they had to decide today which model code to recommend, their choice would probably be the New York State Code because:

1. It is the latest and most up-to-date model code, first issued in 1951 and brought up to date in March 1958. Because it was the most recent, its authors had the advantage of having all the earlier codes to study.

2. It is the simplest and easiest code to understand.

3. It packages residential requirements in a convenient, easy-to-use manual.

4. It is the only model code for whose preparation ample funds were available. The State of New York gave its Code Commission a budget averaging nearly $400,000 a year over the nearly six years it took to complete the code.

5. It is the only model code that has plenty of money to keep it up to date. It still operates on an annual budget of $400,000 provided by the state government. (This is big money for codes, but it is only about 3¢ per capita for the people served.)

6. It is already widely used as a model for codes outside New York State. For example, it is very closely followed by the New Jersey State Code.

Here is why the American Legion wants code waste ended

This American Legion resolution was read to the ASA code conference by the American Legion representative:

"Whereas the multiplicity of conflicting and often archaic building codes is one of the principal impediments to better housing, discouraging the efforts of the home building industry to develop new ways to build better houses for less and adding a thousand dollars to the cost of the average house for no added value . . .

"And whereas nearly half the cost of this needless waste (which multiplies out to over $1 billion a year) falls on the veterans, since nearly half the houses are bought by veterans . . .

"Now therefore the American Legion strongly endorses and supports the proposal that an American Standard for Residential Construction should be developed that could be incorporated in all building codes."

Meet Dave Kerr and Carl Boester





Letter from the Publisher

From now on I hope and plan to write a letter to our subscribers for each issue, telling you about the men and women who spend their days (and often their nights) getting you the news about our industry's progress and taking you back stage to see what they do to get it.

Dear Subscriber:

Have you stopped to wonder why the New Product news in HOUSE & HOME is so much fuller and better than the building product reports in any other professional magazine you can buy?

Did you know that the New Product reports in a single issue of HOUSE & HOME (Jan) proved so interesting to our readers that they brought more than 40,000 inquiries to the manufacturers?

There are two explanations — men and money. To be more precise, two very good men and enough money to let them do their job right.

Most trade magazines just re-write their product news items out of the manufacturers' publicity handouts. HOUSE & HOME, by contrast, often spends close to $100 to check the publicity handout with satisfied users and make sure our report, whether long or short, contains just the information an architect or builder would want.

To make sure our New Product news is tops, we hired away the former executive editor of *Consumer Reports,* Dave Kerr, just to edit our product news pages. And then, to help him double check the value and usefulness of each new product he is studying, we retained one of home building's top construction experts, Carl Boester, former director of the Purdue Research Foundation.

Dave Kerr earned his way through Yale by working in a machine shop, then plunged into publishing. Before taking over the editing of *Consumer Reports,* he served successively as science and technology editor for Harper & Bros and McGraw-Hill, as news and picture editor for LIFE's war departments, as assistant managing editor of a magazine for men *(Esquire),* and as managing editor and service director of a magazine for women *(Today's Woman).*

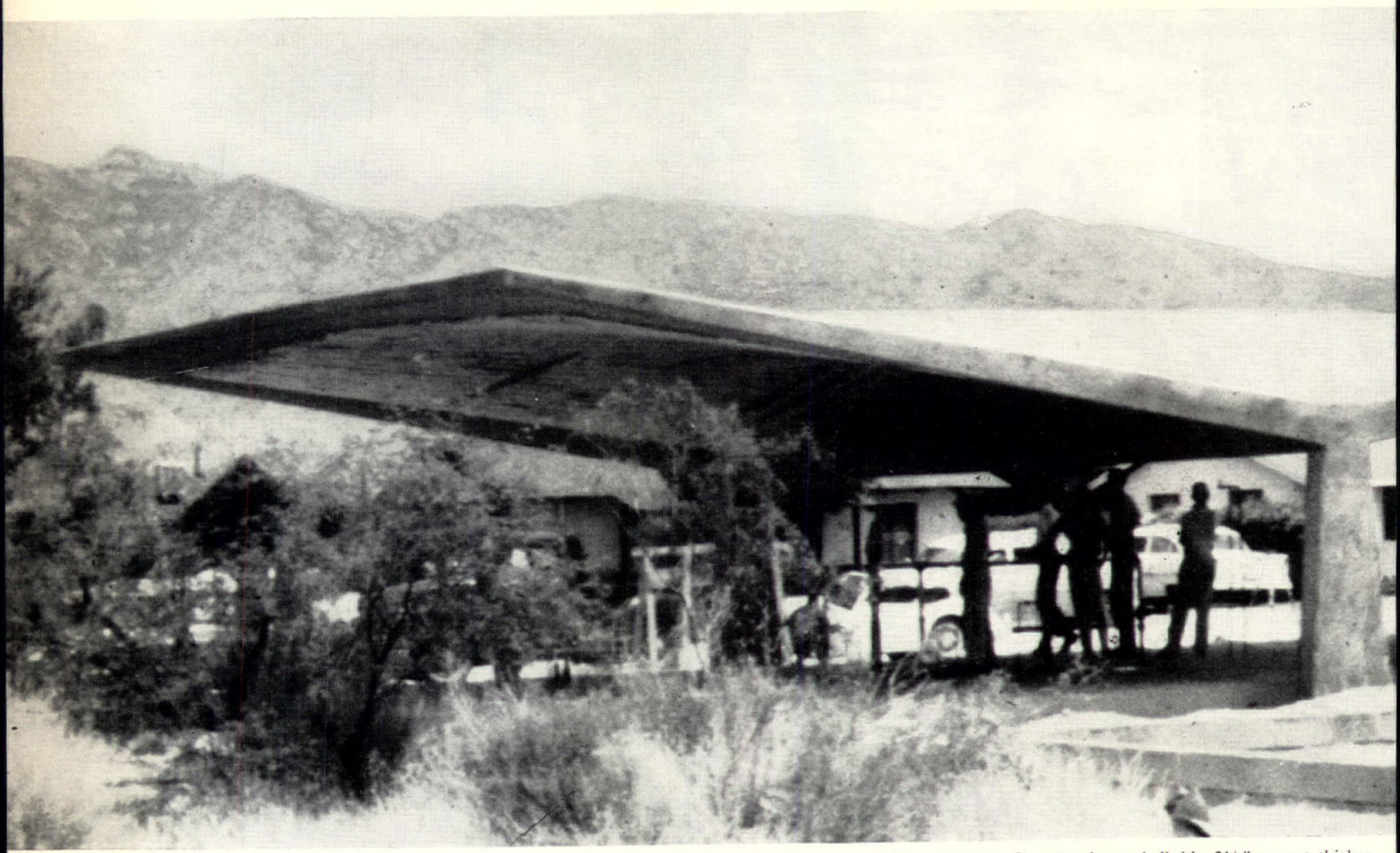
Way back last April Dave picked up a tip in Toledo that some of the lock companies would be bringing out a revolutionary new lock this fall. Just which lock companies and just what would be new, our informant would not say.

So Dave Kerr has been working nearly six months to get you the lock and hardware story that begins on *page 145*—telephoning lock makers all over the country or traveling to see them. Several times we thought he had the story all ready to print, only to have him find that the story was even bigger and that more lock makers were getting into the act and working out still more good ideas to make locks easier to install, to make locks work better, or to make locks look better. At the same time, he kept learning of changes in other hardware that will also help architects offer better design and help builders build better for less.

The end result is one of the most interesting and important hardware stories in years.

Cordially,

Editor & Publisher

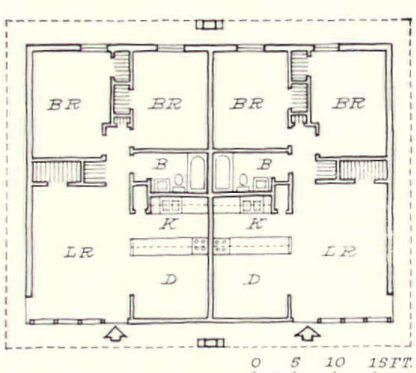


HYPERBOLIC PARABOLOID ROOF gets strength to span 50′ from its curvature, not from its mass. Concrete is eggshell-thin 2½″ except thicker

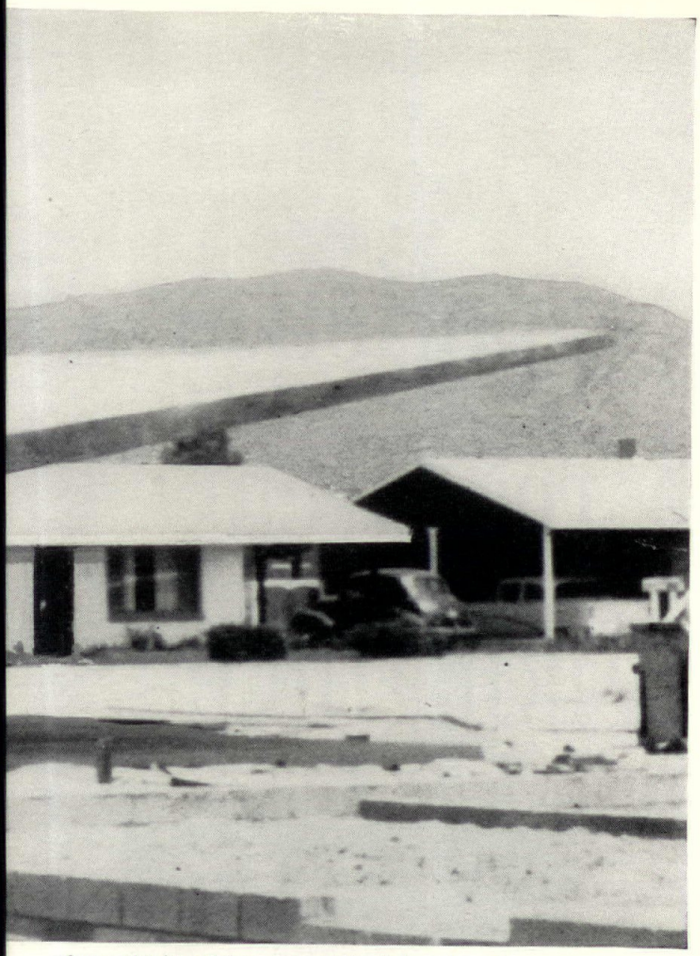
This big and soaring concrete roof marks a first

E R Manley





BUILDING UNDER ROOF is a duplex apartment. Since *none* of the walls are load bearing, building permits complete flexibility in room layout. Despite roof's compound curvature, the fitting of walls to roof was no problem since all lines parallel to the edges of a hyperbolic paraboloid are straight lines.



edges and "ridges" (drawing right) reinforced to take stresses.

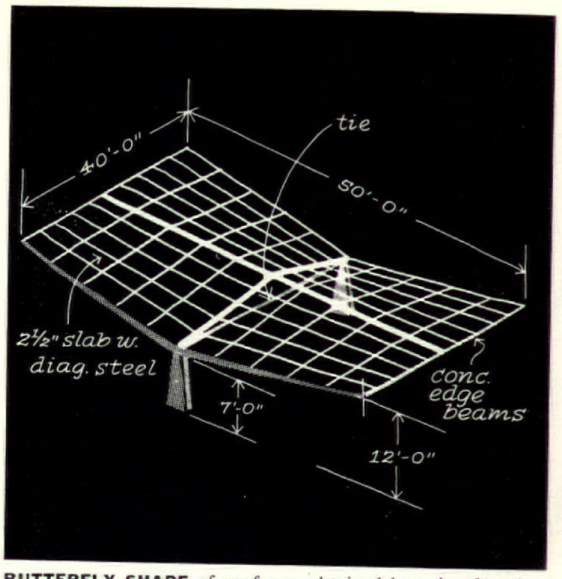
in US home building

Sitting sturdily atop two tapered columns, this butterfly roof is a hyperbolic paraboloid poured in concrete—the first of its kind to be used for a residential building in this country.* The roof—and the duplex apartment beneath it—was designed by AE Consultants of Tucson for the Sentinel Land & Development Co, which built the house as the prototype for a development.

"This kind of roof is a natural for the development builder," says Architect John Beck of AE Consultants. "When the cost of the forms is amortized over a number of houses, the cost of the roof is extremely competitive." Other advantages: complete flexibility of room layout and low cost wall construction (because none of the walls are load bearing), speed of erection, excellent fire resistance.

The roof was built by W L Johnson Construction Co, a bridge building firm. "This was our first residential job," says Construction Superintendent John Tims, "but we just followed the picture and we had no difficulty." Building the first half of the forms took "some time," but the second half went up in a day. Pouring was done "up in the air" on this house; but, Beck thinks, "in volume production we might add a little more reinforcing and pour on the ground." (Present reinforcing is not primarily structural, merely temperature reinforcing; would need to be strengthened to take additional strain of lifting.)

For insulation and appearance, underside of roof is 1½" foamed styrene which was placed in forms before pouring. Top surface is finished with brushed-on polyvinyl asbestos fiber coating. /END



BUTTERFLY SHAPE of roof was obtained by using four h-p sections (outlined by heavy lines). Single h-p produces more radical shape (for example, see H&H, Aug '55).



POURING of roof and columns was one continuous operation that took only six hours. Bucket was hoisted by crane. 6½-sack mix of 3,000-lb concrete with 3" to 4" slump was used.



SMOOTHING went on during pouring. Retarder was used to give finishers more time. Reinforcing (left) is #3 or #4 rods 18" oc both ways, set diagonally to edges of roof.

* According to Portland Cement Assn records. For an earlier and famed house with a wood h-p roof, see H&H, Aug '55.

National Homes experience allied with Alcoa research brings forth the Viking line-



a new standard of care-free living with aluminum

Alcoa has long pursued a penetrating program of research and development to foster better building with aluminum. Today the results are on view for the nation's builders in "The Viking." This newest line of homes made by National Homes Corporation emerges as an exciting example of outstanding design and imaginative employment of Alcoa® Aluminum for Care-free living. We hail National Homes for this signal achievement in housing. At the same time, we welcome every member of the home-building industry to use the facilities Alcoa can provide to speed progress toward ever-greater values in maintenance-free construction.



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1969-K ALCOA BUILDING, PITTSBURGH 19, PA.

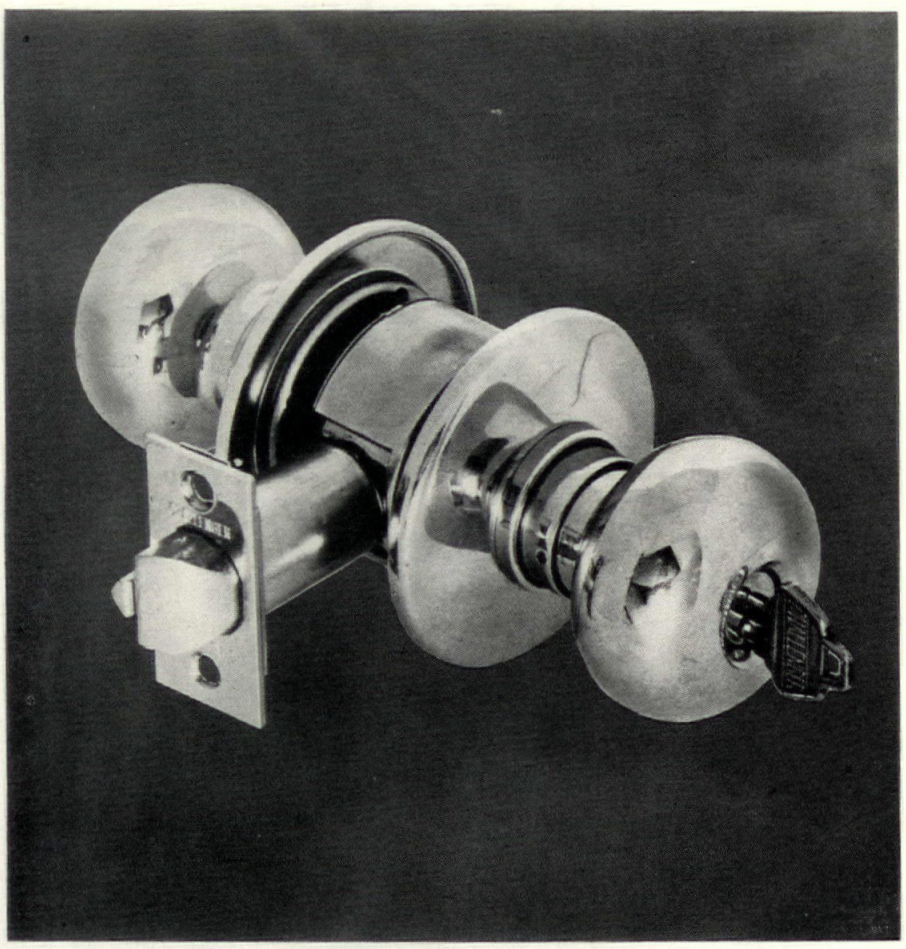
Be sure to see

NEW WAYS TO BUILD BETTER

A monthly report on home building ideas, products, and techniques

Starting here

New products



Newest lock from Challenger Lock Co is this model C, 900 series, heavy-duty set. The company claims new operating smoothness and six times ordinary wear from the lock's extra large, sapphire-hard spindle bearing. Other quality features: one-piece, cold forged knobs; anodized aluminum housings; one-piece, cast bronze retractor; roller bearings; and easy-to-change cylinder. Challenger Lock Co, Los Angeles.

For details, check No. 1 on coupon, p 210

To see what is happening in all phases of door hardware, turn to page 170.

And on the following pages

Technology

How to make a cathedral ceiling . . .
Save money on glueless trusses . . .
Sewage grinder saves water . . .
Laminate a gypsum wall . . .
See page 154

What the leaders are doing

Show your brand-name products . . .
Door frame adjusts for warpage . . .
Use low-cost stained glass . . .
Beach house displays home features . . .
See page 160

Publications

How to choose a countertop . . .
What to do about lawns . . .
Power for your job site . . .
Kitchen plans for LuReCo houses . . .
See page 201

More **New products**

Multi-outlet home intercoms . . .
Baseboard heating units . . .
New portable power sprays . . .
See page 194

Bildrite has unexcelled 2-way moisture control

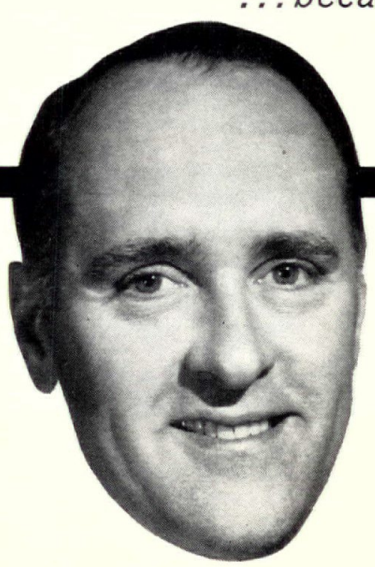
...because it's asphalt impregnated

Bildrite has more insulating value

...because its sturdy fibers trap millions of air cells

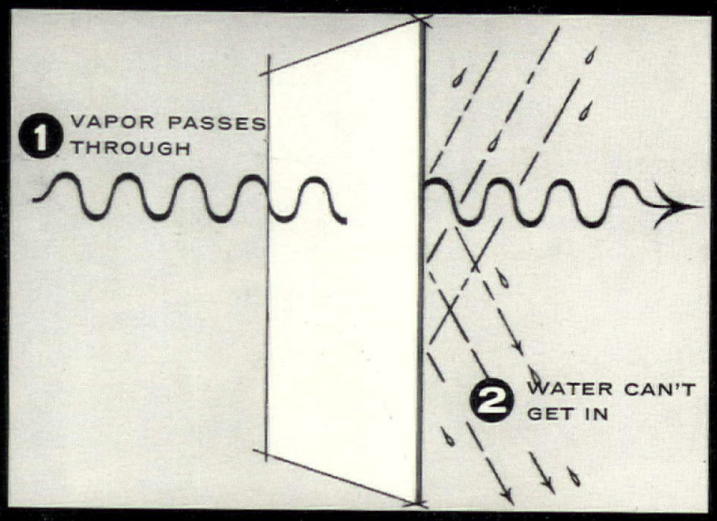
Bildrite has more bracing strength

...because it's made from cold ground hardy Northern wood fibers



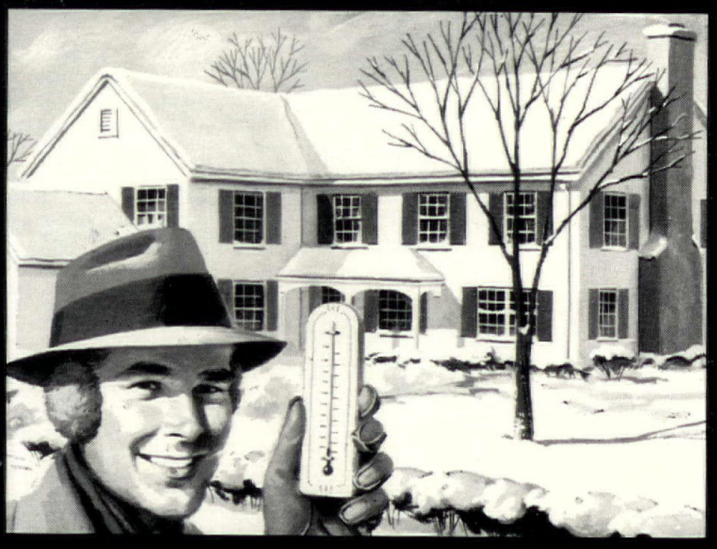
"I tried 6 other sheathing materials... then settled on Bildrite exclusively"

Jack Dietrich, president of Homestead Construction Corp., Highland, Indiana, has recently completed a 680-home project using Bildrite Sheathing and Insulite Shingle-Backer exclusively. "When we started, I tried seven different brands of sheathing," says Dietrich, "but never found anything to match Bildrite for strength, easy cutting, or nail holding ability. Why should I gamble, when I can get Bildrite?"



Wherever moisture threatens homes

(and most damage occurs in outside walls), the only way to build safely is to provide a vapor barrier on the warm side of the wall, let any vapor that gets through the barrier escape rapidly to the outside. Bildrite Sheathing sets up NO VAPOR BARRIER ON THE COLD SIDE. Yet it sheds water like a duck. Used with proper interior vapor barrier, Bildrite vents excess vapor; controls condensation build-up that can rot framing members or ruin interior walls.



Where temperatures reach 40 degrees below zero

—as at the Minnesota-Canada border—homeowners have proved through many, many years that Bildrite Sheathing gives priceless *extra* insulation to sidewalls compared to wood or gypsum. And the extra insulation costs builders nothing. Millions of air cells, trapped between asphalt-treated wood fibers, reduce heat loss most effectively. And being applied *over* studs, plates and sills, etc., Bildrite blankets the 15% or more of wall area *completely missed* by stud-space insulation.



Where wind velocities hit 80 miles per hour

—as happened recently in New England—the value of Bildrite's very high bracing strength is seen dramatically. But even under normal stresses, too, this tremendous resistance to racking adds priceless extra quality to homes . . . and gives the builder real peace of mind. Want more information about how and why Bildrite's better fibers make a stronger board . . . and facts about Bildrite's contribution to moisture control? Write us—Insulite, Minneapolis 2, Minnesota.

build better, save labor, with

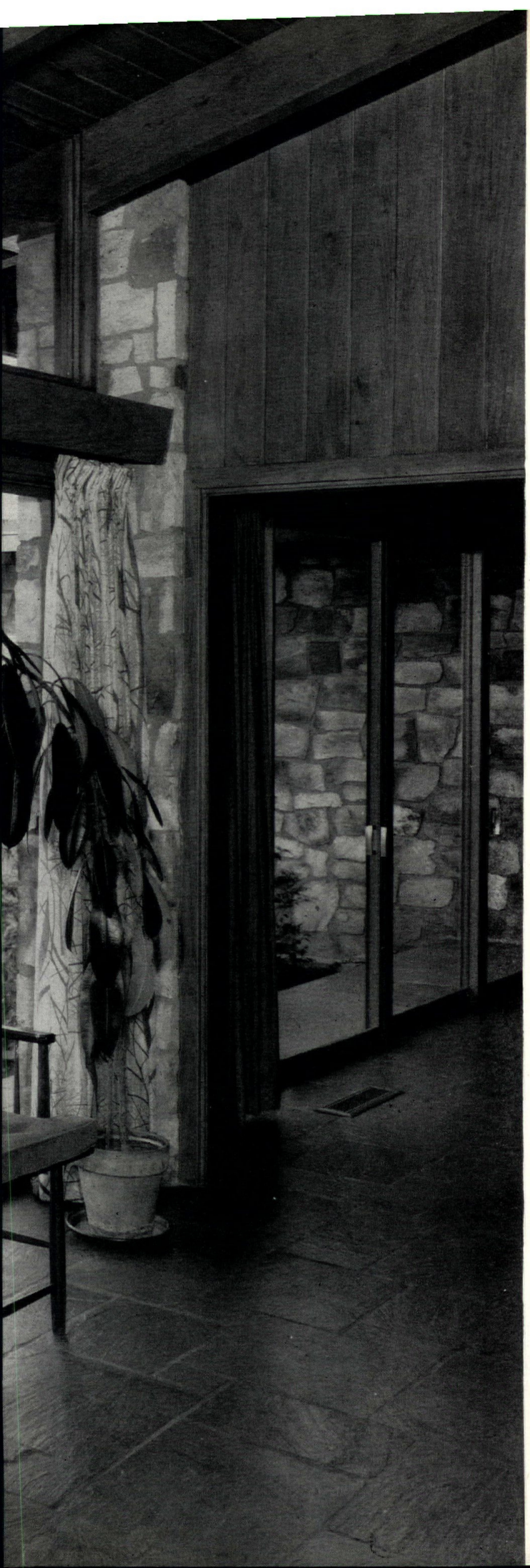
INSULITE

Bildrite Sheathing

Insulite *made of hardy Northern wood.* Insulite Division of Minnesota and Ontario Paper Company, Minneapolis, Minnesota

INSULITE AND BILDRITE ARE REG. T.M.'S, U.S. PAT. OFF.







Only steel frames had the combination of strong yet thin sections which made this design possible.

Window wall with two sliding steel doors and two fixed panels. Designed for strength and maximum glass area. Howard Callaway home, Pine Mountain, Ga. Architects: Aeck Associates, Atlanta, Ga. Builder: Newman Construction Co., La Grange, Ga.

Windows styled in steel offer beauty, strength and economy

The architect for this large home wanted to take advantage of a beautiful view overlooking a valley. But he also needed strength for the sliding doors, maximum light area and economy of construction. He chose steel frames because of their suitability, lack of maintenance problems and over-all economy. In addition, steel could be painted to blend with the natural wood and stone.

The builder was pleased with steel because there were no installation problems. He said, "The installation is very fine because the windows and sliding doors were shop-fabricated. All we had to do was prepare the openings. As far as quality is concerned, you can't beat steel. And as for price, steel could be used in any home. It's very economical. The house has been in service a year and we've never had to go back and adjust the sliding doors or windows."

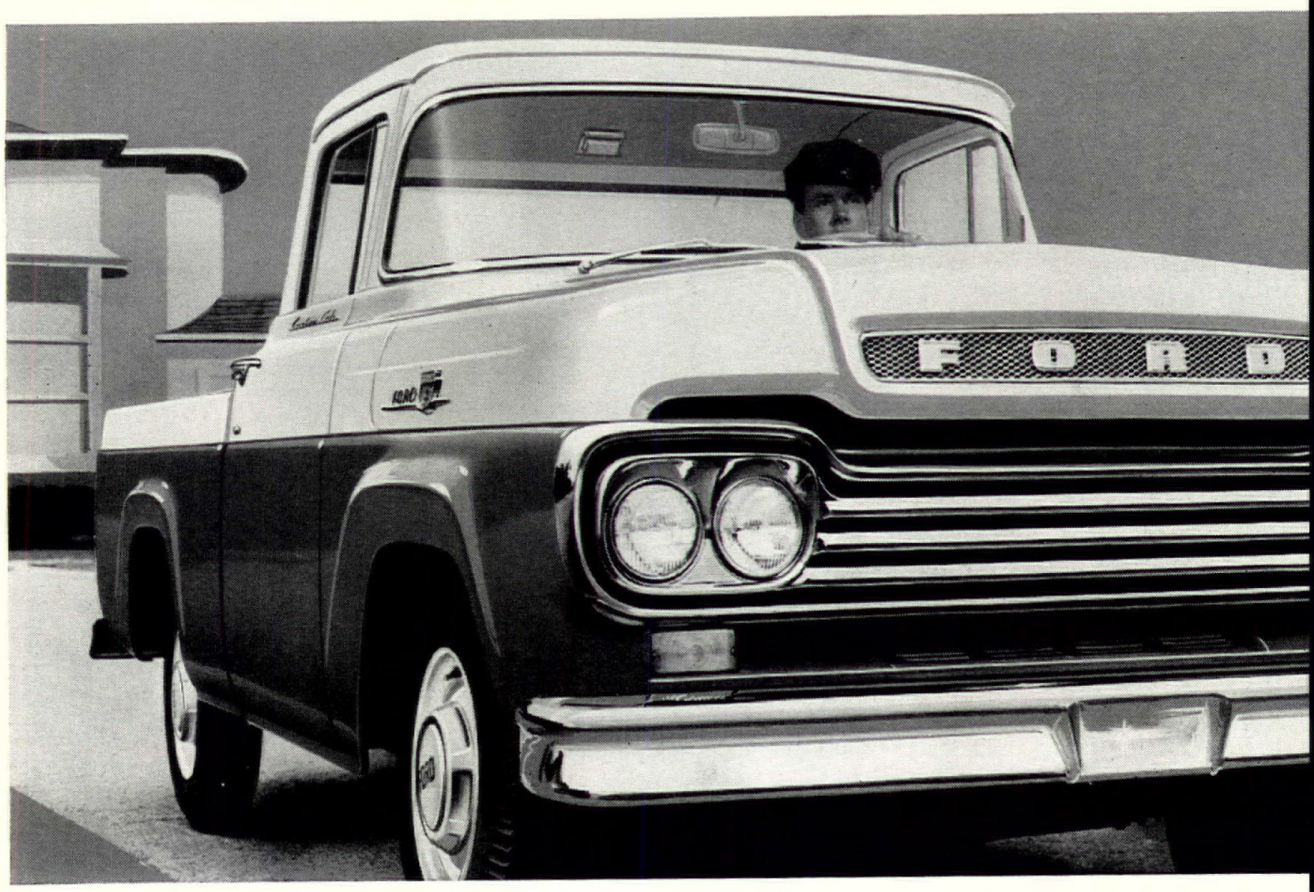
The same advantages of steel windows apply to smaller homes. You save money on both the original cost and the installation. Steel sash is readily available in styles to fit any type of home.

United States Steel has been supplying window manufacturers with special rolled steel sections for more than forty years. The windows are bonderized for resistance to corrosion and delivered to the job with a prime coat of paint ready for installation. With a minimum of care, they will last as long as the house.

USS
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United States Steel Corporation – Pittsburgh
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United States Steel Export Company

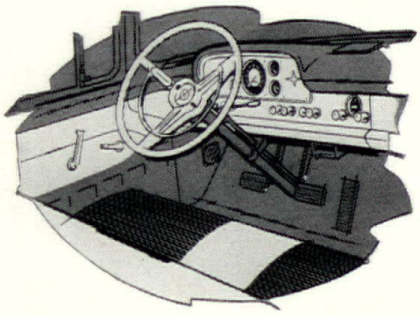
United States Steel



GO FORD-WARD







New Cab Interiors! You'll think you're in a passenger car! Comfortable Custom Cab offers longer wearing fabrics, new modern steering wheel with integral horn ring. Two-toned doors, seats; instrument panel two-toned, chrome-trimmed.

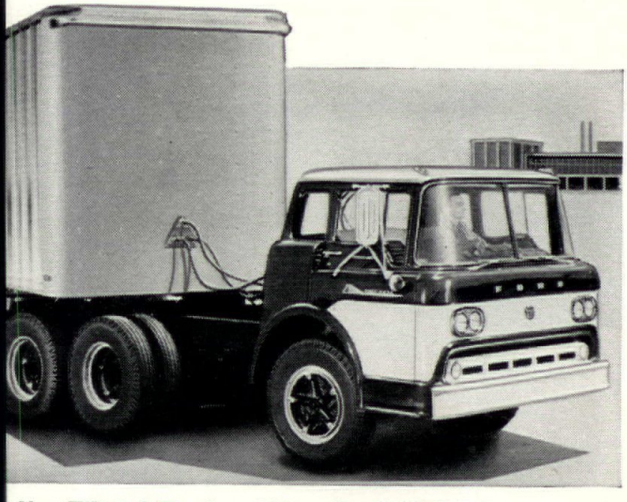
New Styleside Pickups! Notice the handsome new grille, dual headlights, stronger wrap-around bumper. The cab-wide body holds 23% more than any conventional pickup box. 6½-, 8- and 9-ft. boxes available in Styleside or Flareside models. Short Stroke Six or V-8 engines.



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New Tilt Cab Tandems! Now, Ford Tilt Cab Tandems with GCW ratings up to 75,000 lb. Now, all the advantages of tilt-cab design with the carrying capacity of tandems. Saves 3 ft. in length, saves hours of maintenance time.

2-ton Performance Leader with new 6,000-lb. front axle option for greater load capacity, longer life. Maximum GVW 19,500 lb. Fully automatic Transmatic Drive available. Short Stroke power, Six or V-8.

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All this, plus the industry's best durability record—a study of ten million trucks proves Ford trucks last longer! And every Ford has safety glass in every window. See your Ford Dealer today . . . go *Ford*-ward for savings!

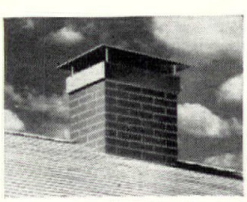
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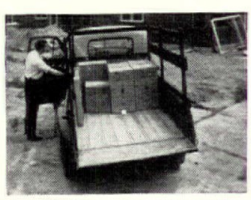


Packaged masonry chimney goes up in 3 hours

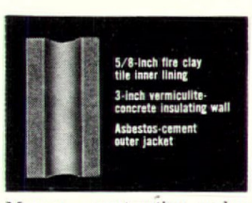
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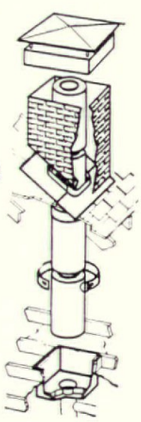
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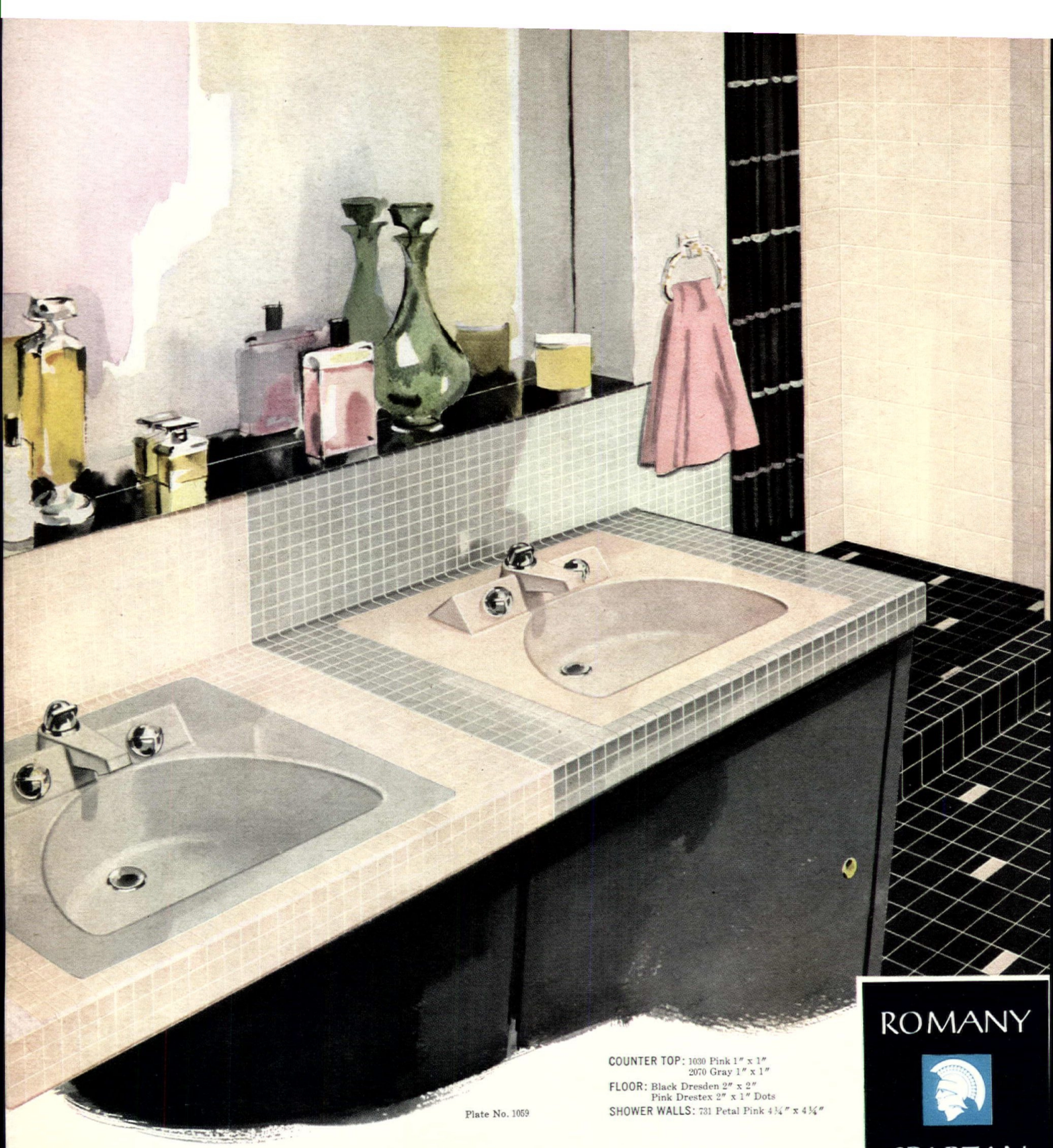
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Plate No. 1059

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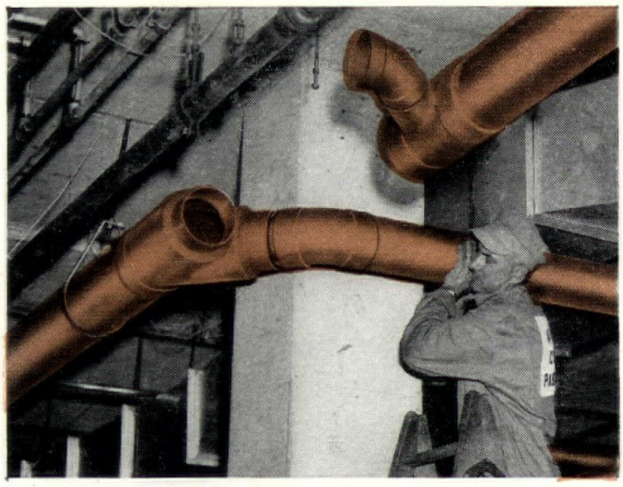
You know how the words "clay tile bath" make prospective home buyers sit up and take notice. Now, take advantage of the public's taste for tile by installing genuine Romany•Spartan ceramic tile in the homes you build. In beautiful hues, satin glazes and textured finishes, Romany•Spartan clay tile can actually be installed at less cost than many substitute materials. New tile setting methods do the trick. Let Romany•Spartan tile help you sell more homes at bigger profits this year. Consult your tile contractor. United States Ceramic Tile Company, Dept. W-13, Canton 2, Ohio.

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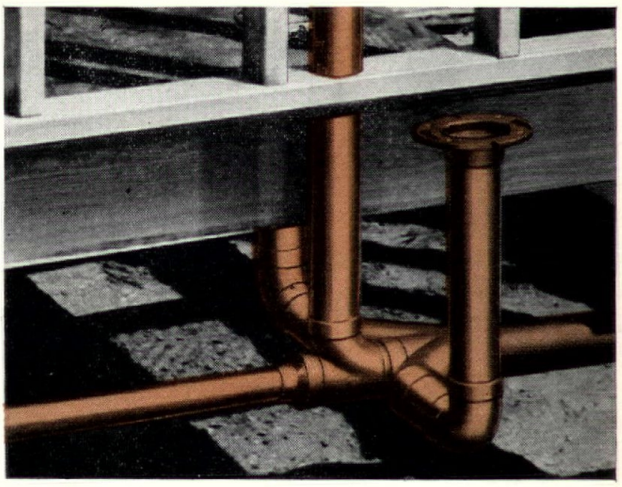
Write for Romany•Spartan's "Color Harmony Guide"—8 pages illustrating the complete tile line and including a helpful chart showing harmonious combinations. It's free.

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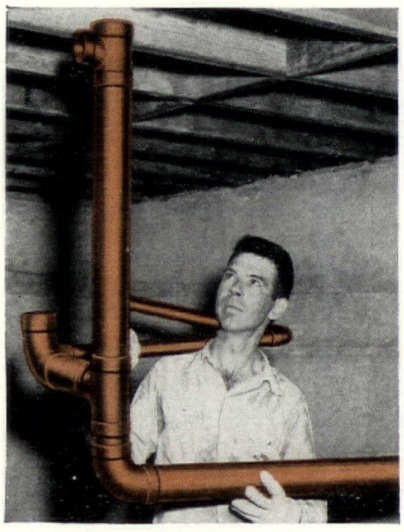
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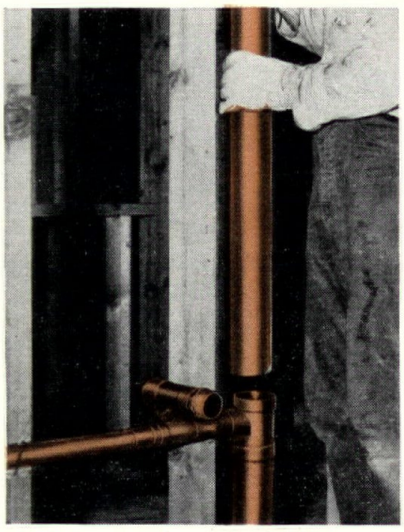
Typical of the larger Anaconda cast-brass drainage fittings is this 8″ to 6″ Y-branch, being installed in the soil line of a large hospital.



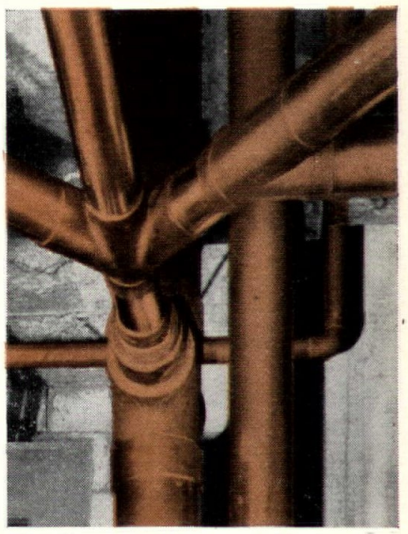
This 3″ double, long-turn T-Y is a key fitting to economical installation of back-to-back bathrooms. Note "fitting to copper" reducer connecting 2″ waste line to the double T-Y.



Lightweight tube and fittings make possible time-saving preassembly sections which are easily handled and can be readily put in place.



A 3″ copper tube stack with fittings can be installed within a standard 4″ wide partition. No costly and space-consuming build-outs or extra-wide partitions.



8″ soil stack and 6″ vent in 43-story office building. Space-saving, easily installed solder-joint fittings are a big advantage in large work like this.

Drainage Fittings for every job—big or small

Anaconda Cast-brass Solder-joint Fittings for copper tube drainage systems cover the waterfront—from 1¼″ through 8″

Whether you are installing sanitary drainage lines for a skyscraper, a hospital, or a modest home, there are Anaconda solder-joint fittings available to do the job quickly and economically with copper tube. Anaconda Cast-Brass Drainage Fittings are made in nominal sizes from 1¼″ through 8″, in a complete line of elbows, tees, couplings, adapters, regular and long-turn T-Y's, Y-branches, traps, closet bends, flanges, etc. There is a correct fitting for every part of every job.

Make sure that your wholesaler furnishes *both* Anaconda Fittings and Anaconda Tube—a "matched team" of highest quality, manufactured to dimensional tolerances which help you make sound, tight connections faster.



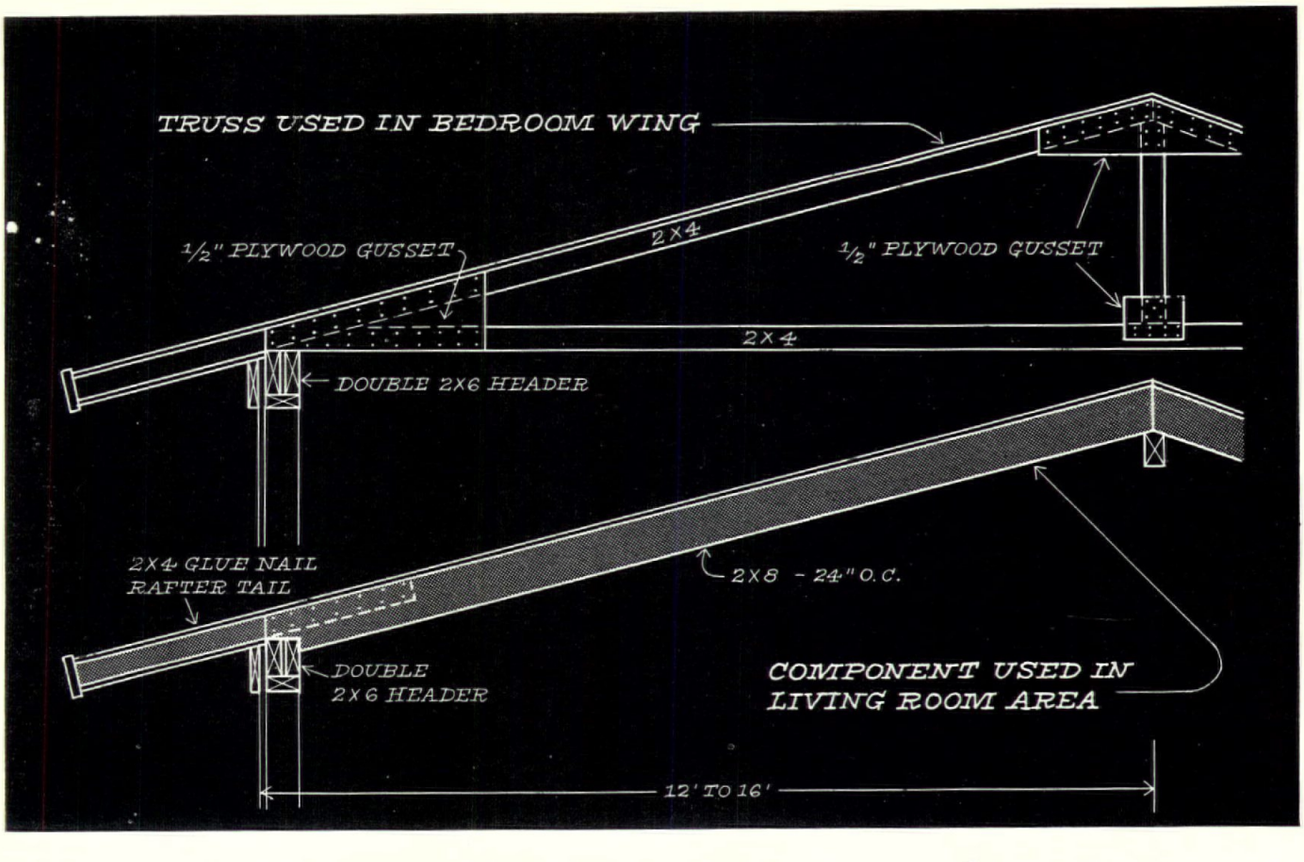
Have you our catalog "Anaconda Copper Tube Fittings and Valves"? If not, write for a copy today. It lists, with illustrations and roughing-in dimensions, the complete range of Anaconda Fittings in sizes from 3/16″ through 12″ for all copper tube applications—general plumbing, heating, air-conditioning and refrigeration. Ask for Anaconda Publication C-12. Address: The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario, Canada. 5802

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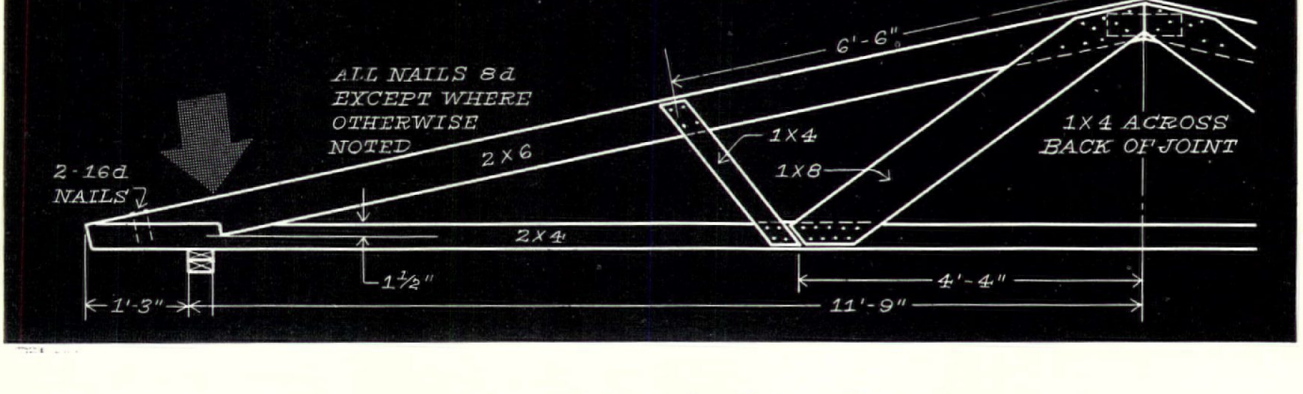
Available through plumbing wholesalers



New cathedral ceiling component ties in with truss system

The new component (shaded in drawing above) lets Savannah Builder Clayton Powell put a vaulted ceiling in the living room end of his houses just as quickly and cheaply as he puts up trusses and a flat ceiling in the bedroom wing.

The new component consists of a 2x8 cut out to bear directly on the double 2x6 continuous header, and a 2x4 glue nail rafter tail to form the overhang. The component blends perfectly with the glue nail king post truss Powell uses (see drawing)—it rests on the same continuous header, requires no change in wall construction, and the rafter tail matches exactly the 2x4 tail of the truss. The component is put up in two pieces—one on either side of the ridge—and the two sections are either lapped, or butted with a gusset. No tie rods are required because of the connection at the ridge and the mortising of the 2x8s—roof load on the header is direct. Component is made by Powell's Component Mfg Co.



This glueless truss saves San Diego builder $20 a house

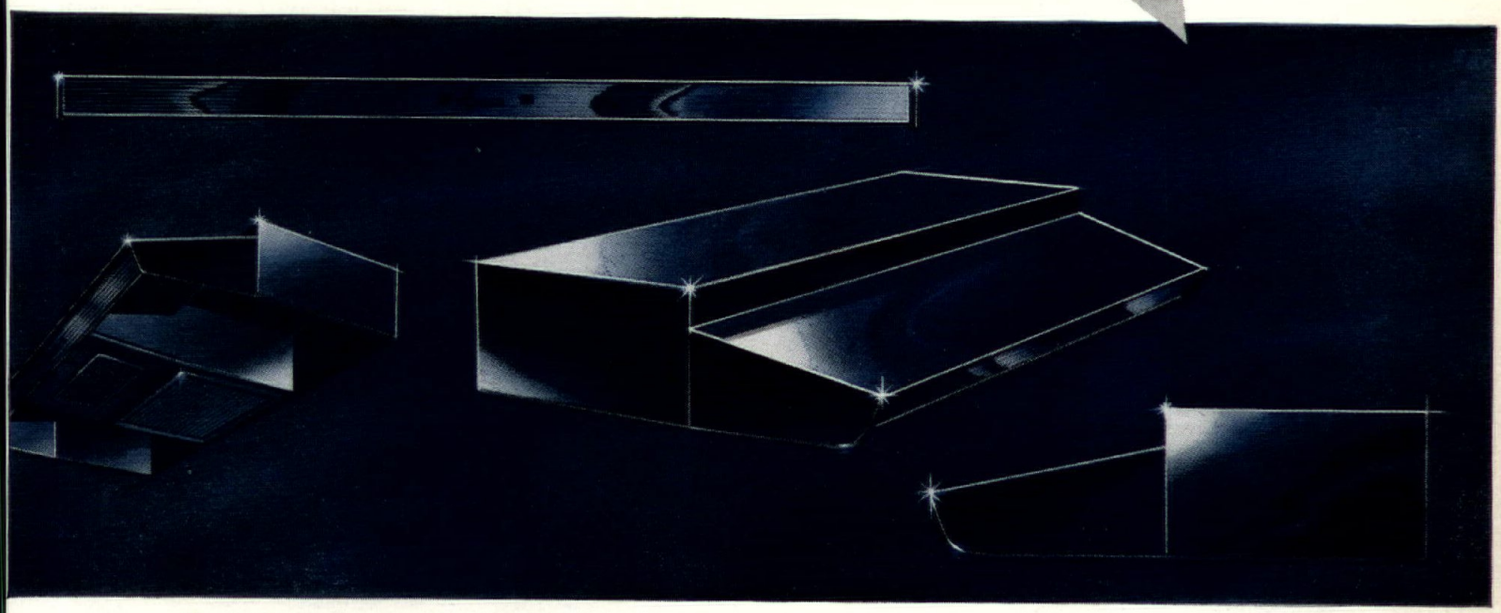
If you haven't the facilities for glue nailing, this truss is worth some study. It was designed for American Housing Guild, San Diego's biggest builder, costs 90¢ (or $20 a house) less than the conventional truss with nailed plywood gussets that AHG used earlier.

Its secret: the bird's-mouth joint (arrow on drawing above) used at the connection of top and bottom chords. Only two nails are used at this connection—mainly to keep the two chords in alignment. The load is taken by the joint—the heavier the load, the harder the top (compression) chord presses into the notch in the bottom (tension) chord.

All parts are cut with templates, and the truss is assembled in a jig, making fabrication fast and easy and accurate. The truss has local FHA and VA approval.

continued on p 156

BE MODERN...GET THE Slim Trim LOOK OF POWER RANGE HOODS BY FASCO

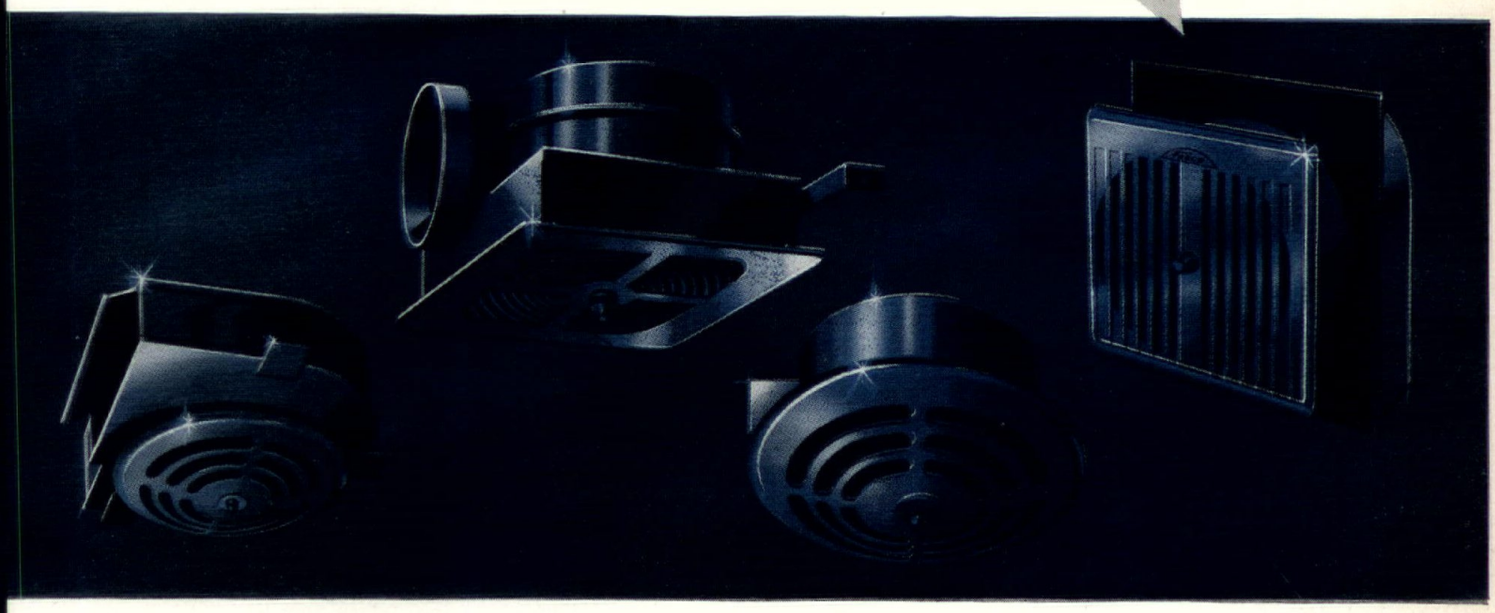


Here's the power range hood with crisp, new styling that blends with today's trend to modern, efficient kitchens. And only Fasco has it!

Featuring built-in light, easy-to-clean filter, and quiet, powerful turbo-impeller, this new Fasco power range hood is the perfect finishing touch for any kitchen.

Give the kitchen you build the extra sparkle that lifts it out of the ordinary . . . install a Fasco power range hood and see how it pays off in sales.

BE MODERN...TAKE A fresh LOOK AT VENTILATORS BY FASCO



You will find it pays in more ways than one to take another look at Fasco. You'll see a complete line of ventilators all with smart "no-rust" anodized aluminum grilles. You'll see ventilators that cut installation costs . . . the trimmest ventilator on the market . . . and a host of other features in this value-packed line designed and priced to reduce your costs.

Take a fresh look at all the new Fasco features . . . they will convince you Fasco ventilators are your best buy today.

Please send me full information on new hoods and ventilators.

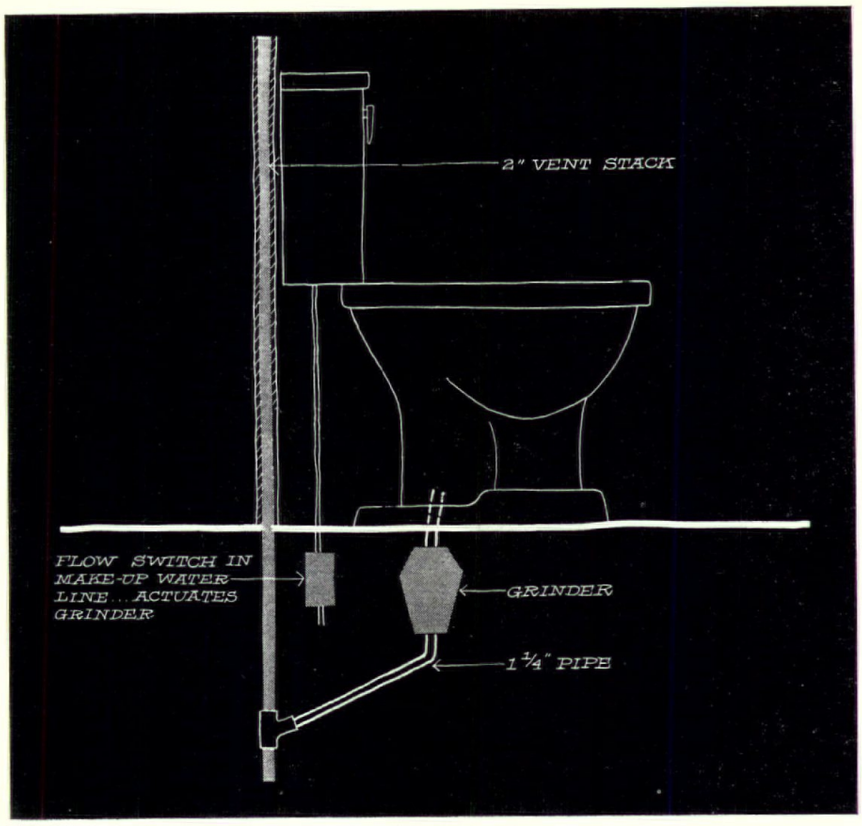
H & H 1058

Name_____

Address_____

City_____ Zone____ State_____

FASCO
INDUSTRIES, INC.
ROCHESTER 2, N.Y.



"A garbage grinder in toilet waste lines can save money and save water"

That advice comes from Carl F Boester, housing research expert. Mounting a conventional grinder (as shown in the drawing above) will, he says:

1) Cut plumbing costs by allowing you to substitute a 2" drainage system and vent stack for the conventional 3" to 4" system in a one-bath house. The material and labor saving will more than pay for the grinder.

2) Save water, since the grinder functions as a pump and aids the toilet flushing and evacuation. In this system, the flush box ball cock float can be adjusted to use less than half the normal quantity of water per flush.

3) Save space, since a 2" drainage system of threaded galvanized iron pipe, sweated copper, solvent-connected plastic, or cast iron pipe will fit into a standard 2x4 wall instead of the usual thicker plumbing wall.

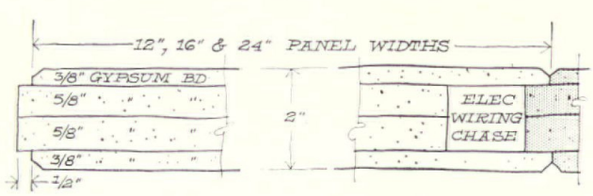
Is such a system allowable?

Yes, says Boester. The National Plumbing Code and practically all other codes specify plumbing drainage system sizes on the basis of "fixture count," which in turn is based on the established discharged rate of various fixtures. The fixture count of a water closet is 6; the fixture count of a garbage grinder is 1 or 1½. Since it is the grinder that is connected to the drainage system, its fixture count (not the toilet's fixture count) is used in calculating the required size of the drainage system. The reduction in fixture count from 6 to 1 or 1½ reduces the total fixture count in a one-bath house below that specified for a 2" stack, vent stack, vent and revent drainage system.

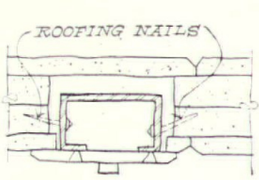
It is not, adds Boester, a variance, violation, or improper practice to discharge toilet wastes into a garbage grinder installed in this way.

What about maintenance costs? It is of course possible that the grinder will require maintenance or repair. But it is not likely, says Boester, since today's grinders are simple and reliable, and this application is an easy one—the load would be in the order of 1/20 hp, and most grinders have 1/3 hp motors. Further, net maintenance costs are likely to be lower because there is less possibility of pipe clogging or septic tank trouble.

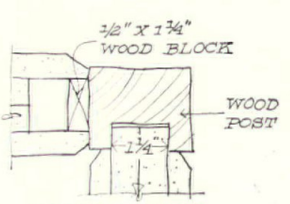
This system is being used in the NAHB Research House that is right now being built by Martin Bartling in Knoxville.



TYPICAL LAMINATED WALL PANEL



OUTLET BOX



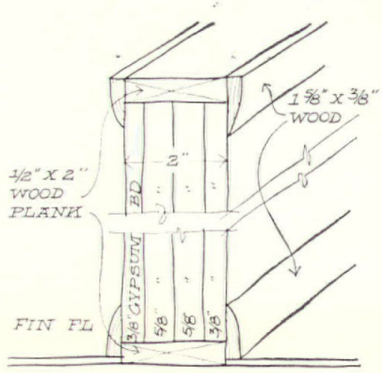
CORNER POSTS

New solid gypsum partition proved in use

Builder Bob Schleicher (Gary, Ind) developed the partition, has tested it in experimental walls and one pilot house. Results? So good, he says, that it will be used for all interior partitions (except the plumbing wall) in a just-begun 240-house development.

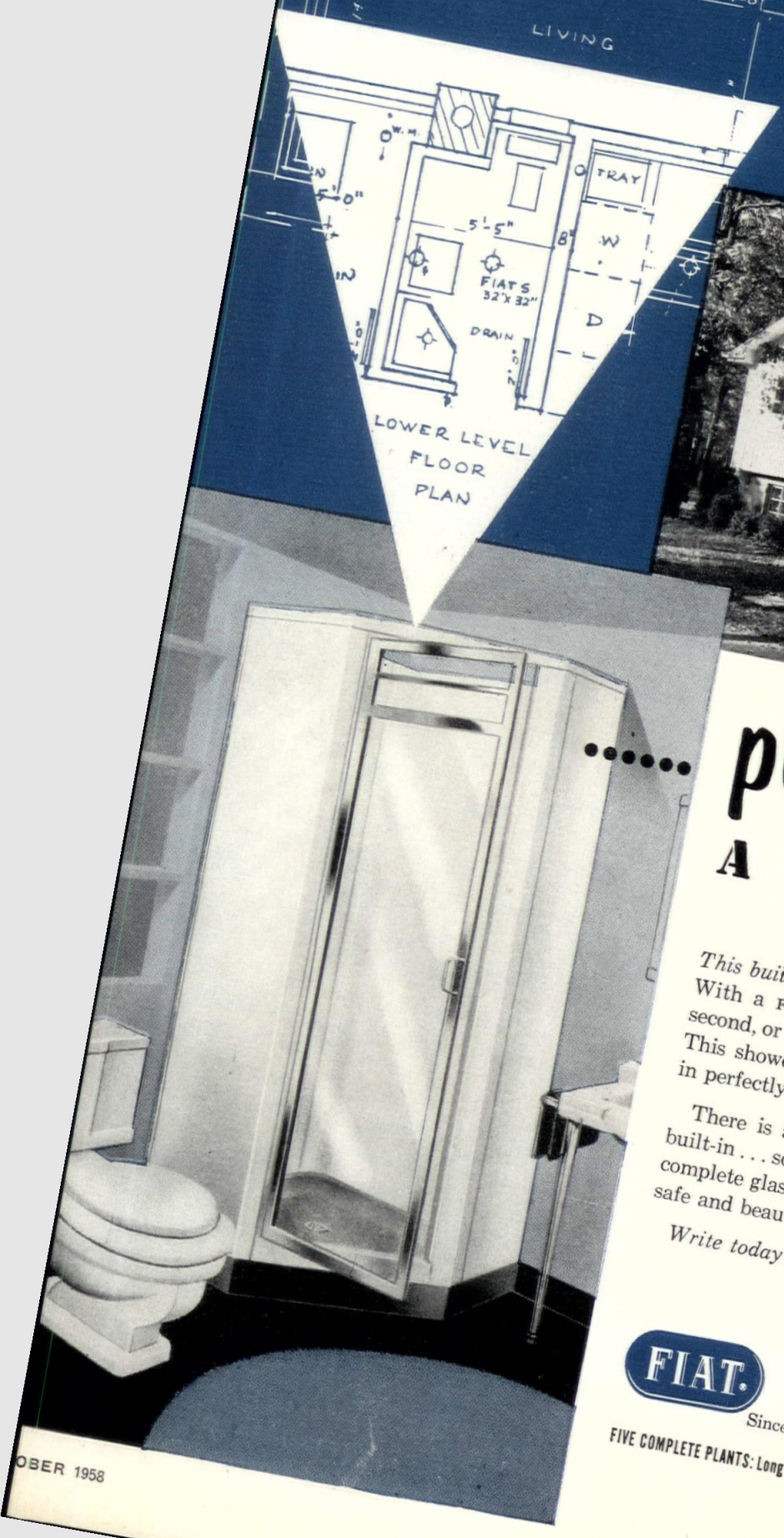
Installed cost, according to Schleicher, is 20% less than a conventional wall of 2x4s and ½" sheetrock. The partition is also, he says, more rigid (so nail popping is not a problem), more fire resistive, and a better insulator of noise. "Built-in" wiring chases (see drawings above) make wiring simple.

The panel has local FHA approval, and a materials release from the national office is pending. A major gypsum company is manufacturing the panels for Schleicher. /END



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This builder found a way to build in more value at less cost. With a FIAT "packaged" shower you, too, can include a second, or third bathroom in even your tightest budget houses. This shower adds more utility . . . requires less space . . . fits in perfectly with your plans for modern living.

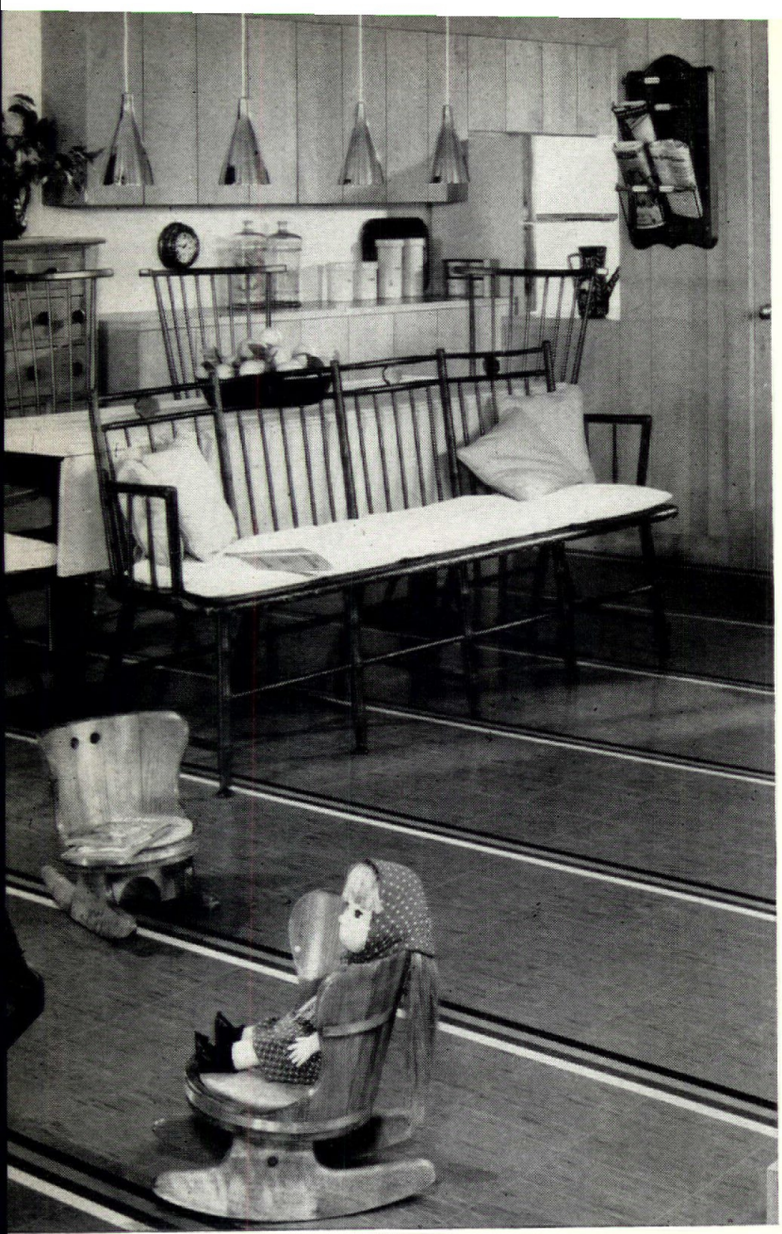
There is a wide variety of models . . . square, corner and built-in . . . some with porcelain enamel walls . . . some with complete glass fronts . . . all with the permanently leak-proof, safe and beautiful FIAT PreCast terrazzo shower floor.

Write today for full color catalog 58.

FIAT METAL MANUFACTURING CO.
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Since 1922...First in Showers / *Packaged Showers • Doors • Floors Toilet Room Partitions*

FIVE COMPLETE PLANTS: Long Island City 1, N.Y.; Franklin Park, Ill.; Los Angeles, Calif.; Orillia, Ont.; Albany, Ga.





Traditional . . . modern . . . simple . . . elaborate . . . with the wide variety of colors and

how to suit your prospects'

without having to refigure your costs

Being able to tell prospects that you'll decorate to suit their individual tastes and furnishings is an excellent sales point. Especially when you can do it unhesitatingly, without stopping to refigure.

Because flooring colors and designs largely determine the appearance of a room, a resilient floor like Armstrong Excelon Tile enables you to alter interiors to suit your prospects without altering your prices. Excelon Tile is a high-grade vinyl-asbestos floor, costing only a few cents more than asphalt tile. It comes in dozens of decorator colors, in five different design effects ideal for residences. With Excelon in your model homes, prospects can choose the colors and designs they want from tile samples or Armstrong brochures. No matter which they choose, your flooring expenses won't vary because different colors and designs in the same gauge of Excelon Tile cost the same.

You can also suit your homes to your prospects with other types of Armstrong floors. In each, a wide range of custom effects can





designs in Armstrong Excelon Tile, any prospect can exactly suit her home-decorating tastes.

individual tastes

be established on a single basic cost. Your Armstrong Architectural-Builder Consultant will be glad to help you select the floors best suited to your needs or arrange for the Armstrong Bureau of Interior Decoration to work with you and your color consultants. He can also provide home merchandising materials geared to your selling needs.

For information on how Armstrong can help increase your sales, call the nearest Armstrong District Office or write to Armstrong Cork Company, 510 Sixth St., Lancaster, Pa.

Suit your prospects' individual tastes . . .
one of the series of merchandising ideas from the Armstrong Architectural-Builder Service to help you sell your homes faster, more profitably.

Armstrong

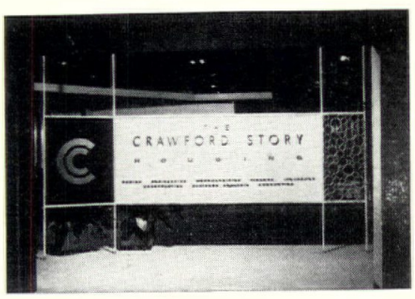
THE MODERN FASHION IN

FLOORS

LINOLEUM • SHEET VINYL CORLON • EXCELON (Vinyl-Asbestos) TILE
CUSTOM CORLON (Homogeneous Vinyl) TILE • RUBBER TILE • CORK TILE
CUSTOM VINYL CORK TILE • ASPHALT TILE • LINOTILE



Crawford uses its new office as a showcase of brand-name products



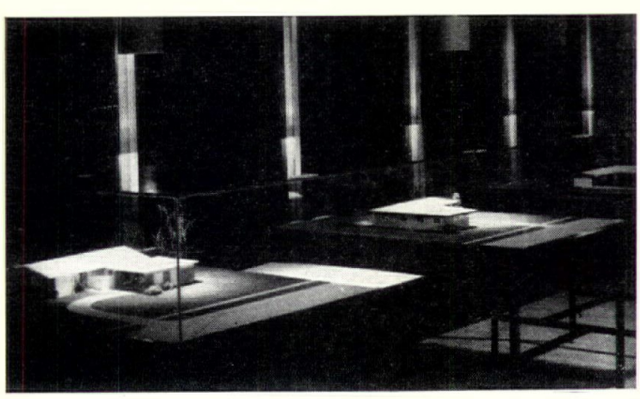
Inside the new office building above and behind the panel at left, a permanent display area tells the sales story of Crawford Corp, a Baton Rouge home manufacturer.

Exhibits like those pictured below point up Crawford's use of brand-name products and show choices of plans, elevations, and materials in Crawford-fabricated houses.

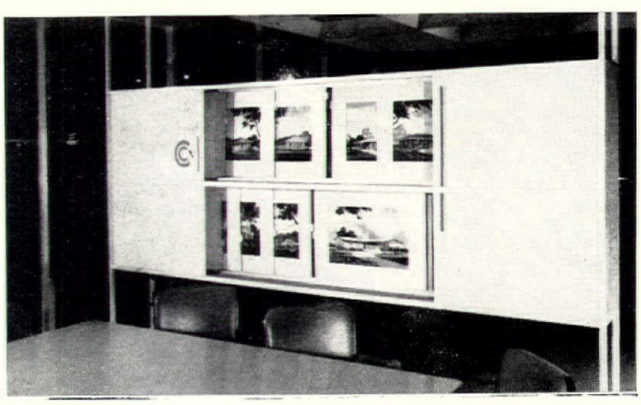
At the local level, the displays help nearby Crawford builder-dealers sell individual home buyers. At the national level, they help Crawford itself sell prospective builder-dealers, who are flown into Baton Rouge from all over the country.

Says President Hamilton Crawford: "We are now trying to get more building-product manufacturers to exhibit in our office, which could become, in effect, a regional housing display."

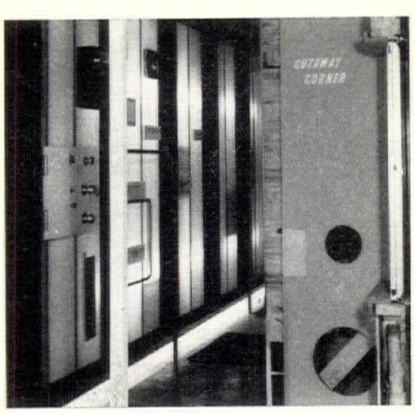
And here are some Crawford display ideas many builders can use



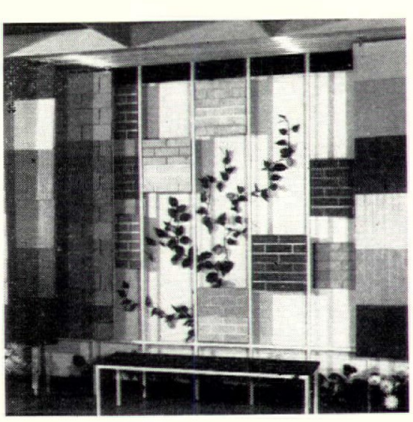
SCALE MODELS of Crawford houses are spotlighted in glass showcases. Plans are displayed in sunken section of table between models.



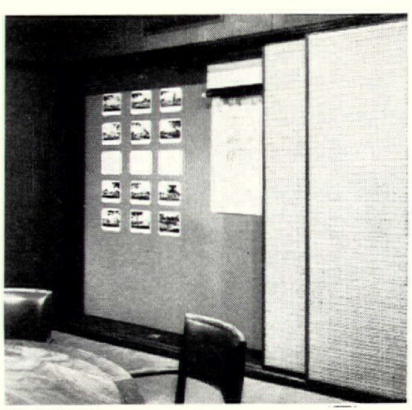
SLIDING-PANEL UNIT shows variety of elevations available with plans. Visitors can make choices while seated at table in foreground.



"CUTAWAY CORNER" gives X-ray view of typical wall. At left: hardware display.

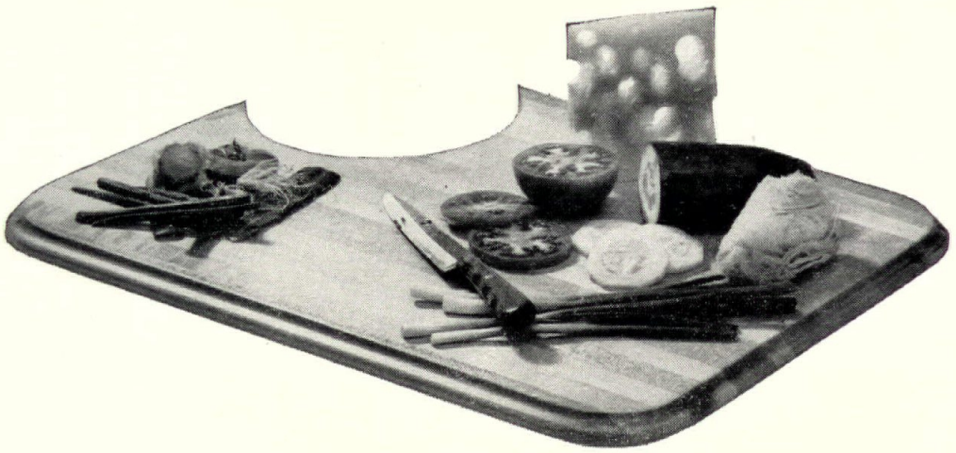


MORE SLIDING PANELS let visitors match up different wall and roofing materials.



MOVIE SCREEN and pin-up board are used for group talks with builder-dealers.

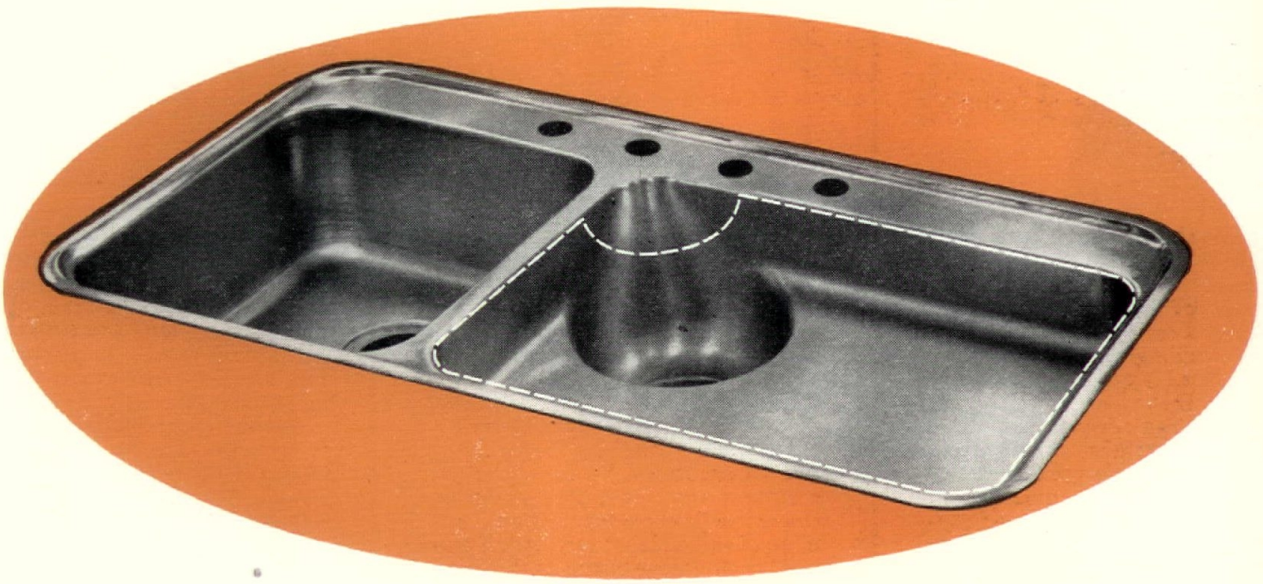
continued on p 164



Now! a cutting board with Lyoncraft

Disposo-Well*

. . . only sink designed for disposers



Here's great news on the exclusive new Disposo-Well line of Lyoncraft Redi-Rim* Stainless Sinks! Now available: an optional, hard maple cutting board to set atop the disposer side of sink, with cutout for disposer use. Second newsmaker: Disposo-Well now comes in four sizes, 36″, 39″, 42″ and 45″, to meet any kitchen need. The first sink designed expressly for disposer units, Lyoncraft's Disposo-Well has such advanced features as the off-center drain hole for an unbroken span of work space, plus the "spoon saving" shelf that holds flatware and utensils.

With the Redi-Rim design, rim and sink are one integral unit that drops into the opening instead of fastening below. Thus, rim and sink cannot separate as do separate-rim installations. As a result, there are no unsanitary dirt-collecting crevices. Get full details and specifications on the complete line of Lyoncraft Disposo-Well with the Redi-Rim—fill in the coupon for your free color catalogue, and the name of your nearest Lyoncraft distributor.

*T.M. AND PATENTS APPLIED FOR

World's largest fabricator
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AUTOMOBILE WHEEL COVERS • PRESTIGE TABLEWARE • KITCHEN SINKS • HOUSEWARES

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Please send detailed information on Lyoncraft Stainless Sinks.

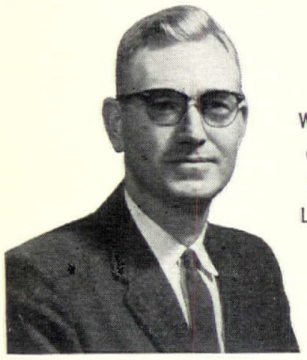
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TITLE_____
COMPANY_____
ADDRESS_____
CITY_____ ZONE____ STATE_____

Key Builders salute

AMERICAN HOUSES'

Silver Jubilee

Representative builders of 20-100-200 or more houses a year express their satisfaction with American Houses' services. Builders who know what tough competition means, and who also know quality and real service when they see it, are unanimous in their regard for American Houses and their way of doing business.

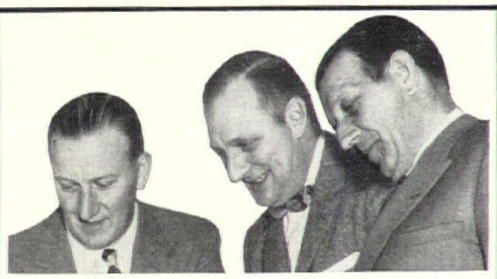


William L. Lennon of Lumber River Real Estate Co., Lumberton, N. C., writes:

We congratulate you on this your Silver Jubilee year.

At this time we would like to thank your staff for their excellent service, counsel, and assistance in setting up a sound building program which we have pursued since 1953, and we might add that at no time have we been without an adequate supply of mortgage money; thanks to American.

American House's efficient architectural designs, high quality and standardization of materials and constant efforts to be of service to their builder dealers, have been invaluable to our building program.



Read what James Dolson, Dolson Brothers, Monsey, N. Y., says of American Houses:

We were informed today that American Houses is celebrating its twenty-fifth anniversary this year. CONGRATULATIONS to you all.

With eight years of experience building American homes behind us, we can now pin-point some of these advantages. Most important is the fact that we can price up any of the many models and variations thereof, fast and with accuracy. Fast construction schedules can be maintained during the entire development with a minimum of skilled labor required. These two benefits alone insure us of coming out with the profits intended.

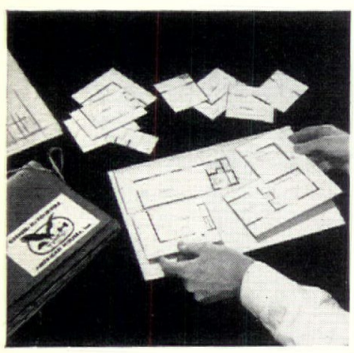


E. Waugh Dunning, President The Coventry Corporation, Baltimore, Md., reports:

As you know we have been buying American prefabs from you for 7 years and have erected more than 200 in our own developments.

The combined operation of developing the raw land and then building the houses would have required a much larger organization if we had built conventional.

We like your prefabs for the following reasons: The time saved in erection; the house being erected, ready for any bad weather in one or two days after delivery; good architectural design; sound construction methods, good material and the flexibility of the basic designs.



Characteristic of the many firsts hung up by American Houses in the prefabrication field, the American Houses' Silver Jubilee was preceded by the greatest advance of all—announcement of the "Design-It-Yourself"* System. With this system selection and arrangement of all house elements is simple. The "Design-It-Yourself" Kit (shown here) shows how easily room elements can be planned.

American Houses, Inc., Trademark

SILVER JUBILEE YEAR

American Houses, Inc.

America's Greatest Home Value

S. Aubrey & E. South Streets, Allentown, Pa.

Plants: Allentown, Pa., Lumberton, N. C., Cookeville, Tenn.

ATTACH THIS COUPON TO YOUR LETTERHEAD

AMERICAN HOUSES, INC.
DEPT. HH-1058
South Aubrey & East South Sts., Allentown, Pa.



I am planning to erect____houses this year and want to know how I can become an American Houses Key Builder. Please send me booklet and complete details on Design-It-Yourself.

Name_____

Company_____

Street_____

City_____ Zone____ State_____

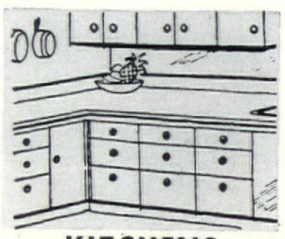


The STYLE and CONVENIENCE of the FUTURE in this

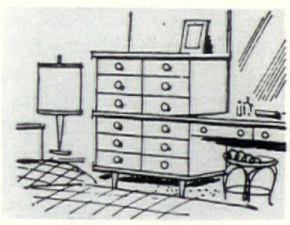
Washington PLASTIC DRAWER



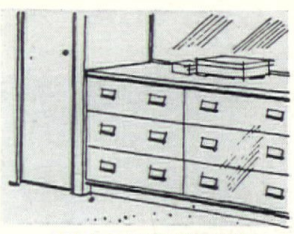
Ideal for:



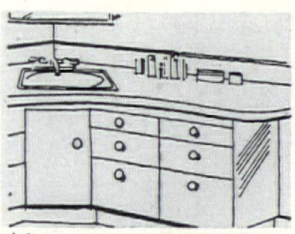
KITCHENS



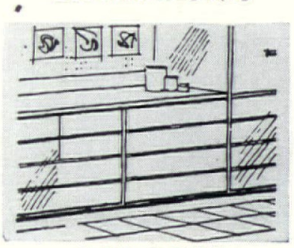
BEDROOMS



WARDROBES



BATHROOMS



SCHOOLS

DURABLE

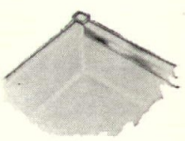
Unaffected by acids, alkalis and other substances usually found in the home. Made of rigid high-quality plastic; will not warp, stick or bind.

EASY TO CLEAN

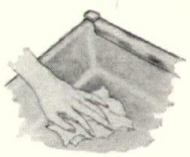
Smooth, no-snag surface and rounded corners make cleaning a pleasure. Use a wash cloth or sponge with soap and warm water. Abrasive cleaners are not necessary and not recommended.

SMOOTH OPERATION

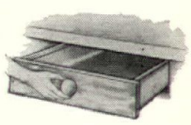
Bright, clean chrome-plated slides operate smoothly and quietly on care-free nylon bearings.



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EASY-TO-CLEAN NO SNAGS



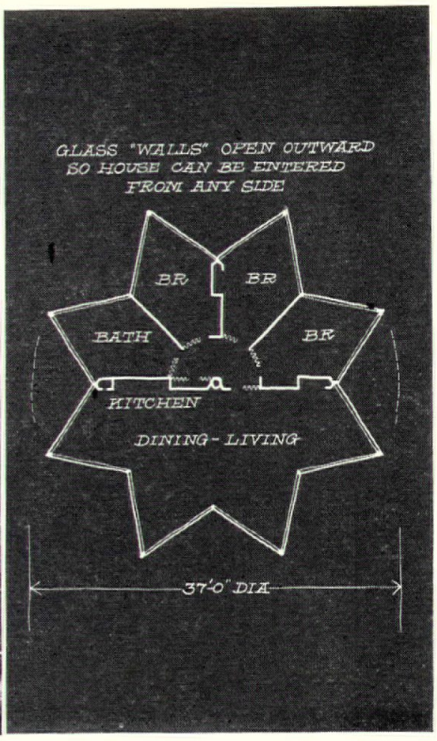
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continued from p 160





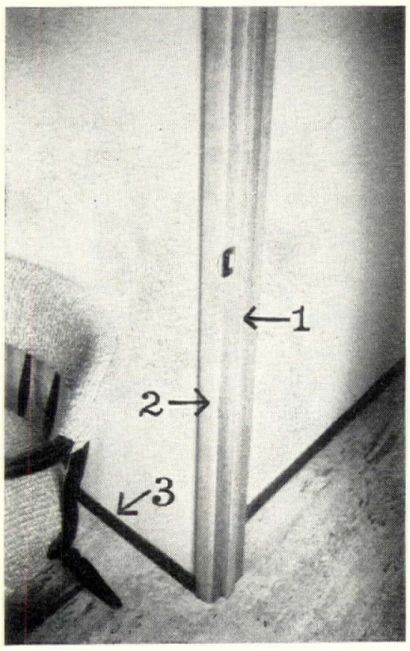
Planning a home show? Here's a display that stirs up interest

You're looking at a two-thirds scale model of Alcoa's rotating beach house.

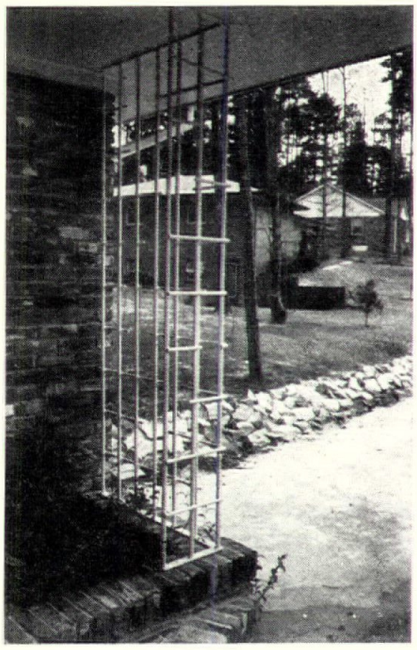
The model, a hit at this year's Los Angeles "Cavalcade of Living," is available for other home shows, Alcoa says. Cost: $2,000 to $3,000 for transportation and erection.

Alcoa introduced the star-shaped, aluminum and glass house (H&H, Jan *p 123*) as a future design idea. It is mounted on turntable, can thus be rotated to follow or escape the sun.

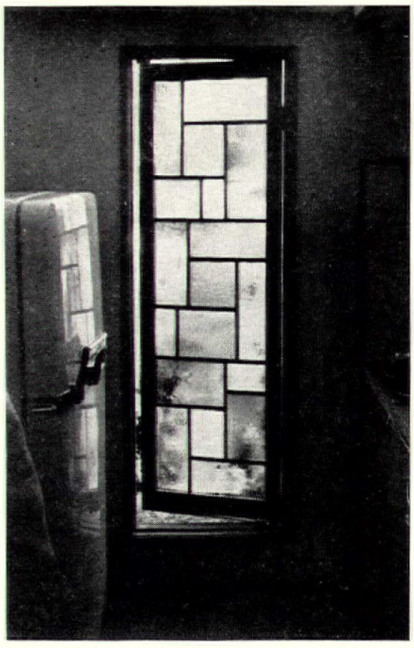
Designed by Robert Fitzpatrick of Harrison and Abramovitz, New York City, the house is 37′ across, with 1,330 sq ft of floor space. It is engineered around a central aluminum column. The conical roof is made up of eight identical aluminum sections. Glass wall sections open out and fit snugly into V-shaped grooves formed by the roof.



One kind of molding—a clam-shell trim—is used for, 1) door stops, 2) door trim, and 3) base shoes by Strauss Bros of Omaha and Lincoln. Result: easier inventory control, less materials waste because odd sizes can be used in so many places.

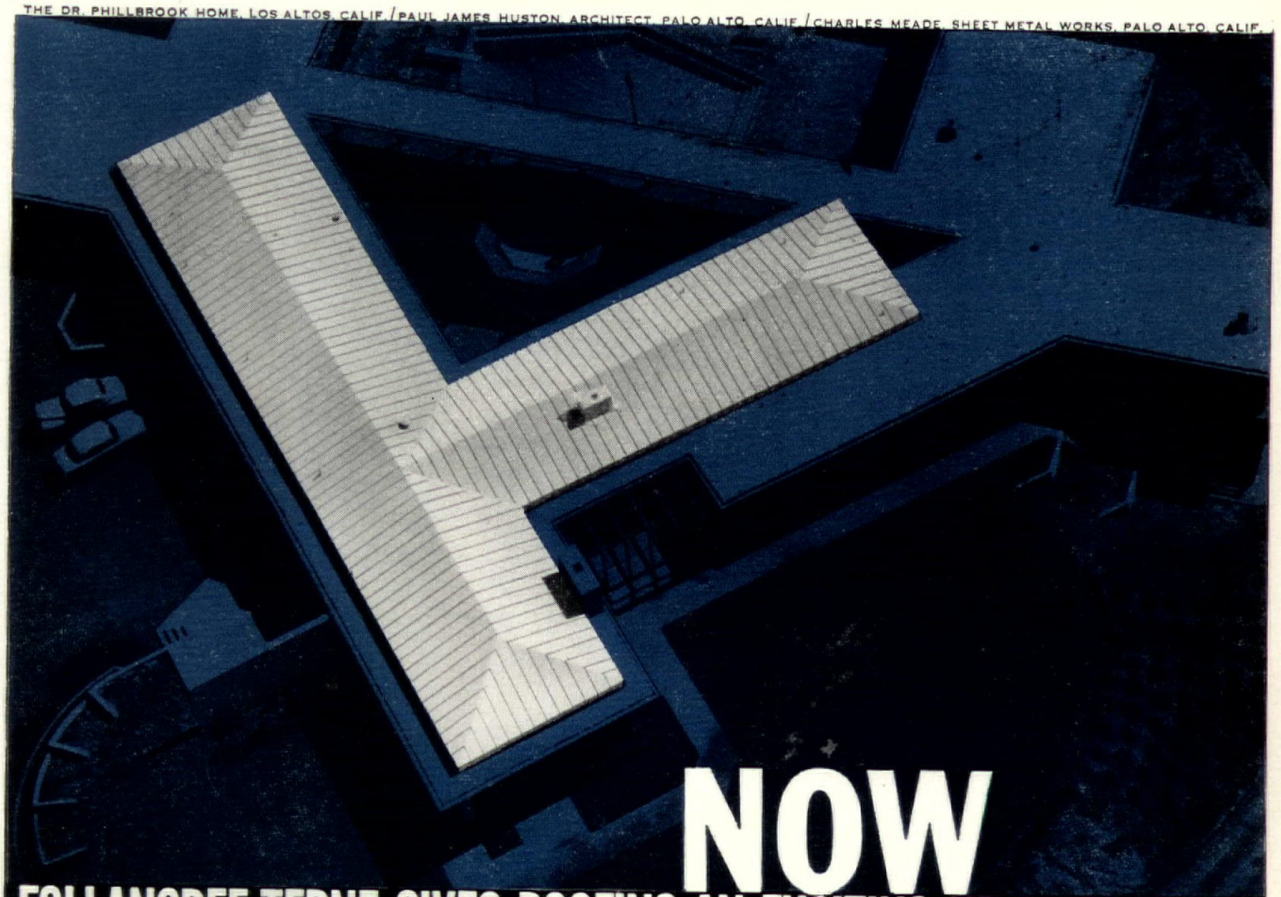


Unusual, low-cost trellis is made of reinforcing bars welded at top and bottom to flat bar stock. It was designed by Architect George Perkins for a house in Augusta, Ga. Trellis is painted white. Horizontal members form a pattern of squares and rectangles.



Stained glass windows add color to the kitchens of some of Burt Duenke's houses in St Louis. Translucent panes are red, blue, and yellow glass fitted in a Mondrian-like pattern by a local glass specialty house. Cost per window without millwork: $45.80.

continued on p 168



THE DR. PHILLBROOK HOME, LOS ALTOS, CALIF. / PAUL JAMES HUSTON, ARCHITECT, PALO ALTO, CALIF. / CHARLES MEADE, SHEET METAL WORKS, PALO ALTO, CALIF.

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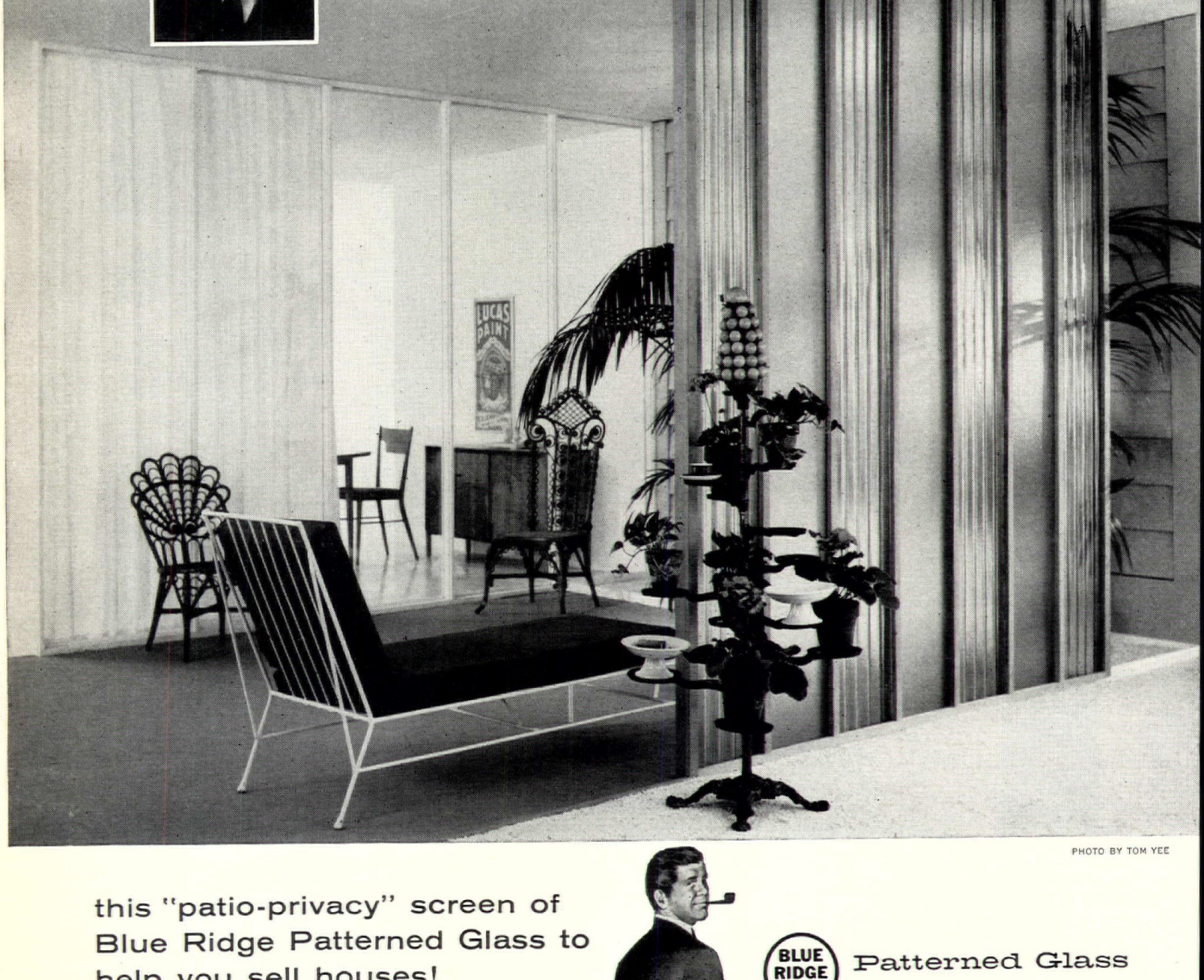


PHOTO BY TOM YEE

this "patio-privacy" screen of Blue Ridge Patterned Glass to help you sell houses!

World-renowned designer Paul McCobb has a sixth sense about people and what they like. What prospective home buyer wouldn't love an area like this, designed for the sheer luxury of relaxing? You are *outdoors*, yet you're protected from the sun (or rain) by the roof and its overhang. You are *outdoors* yet you're screened from the eyes of passers-by (and protected from chilling breezes) by a handsome partition of patterned glass . . . alternate panels of beautiful Blue Ridge Corrugated and Muralex® patterns framed in rich redwood.

This is just one of eight great house-selling ideas Paul McCobb has created with Blue Ridge Patterned Glass. They're all illustrated in a new 20-page booklet. Mail coupon, for yours.



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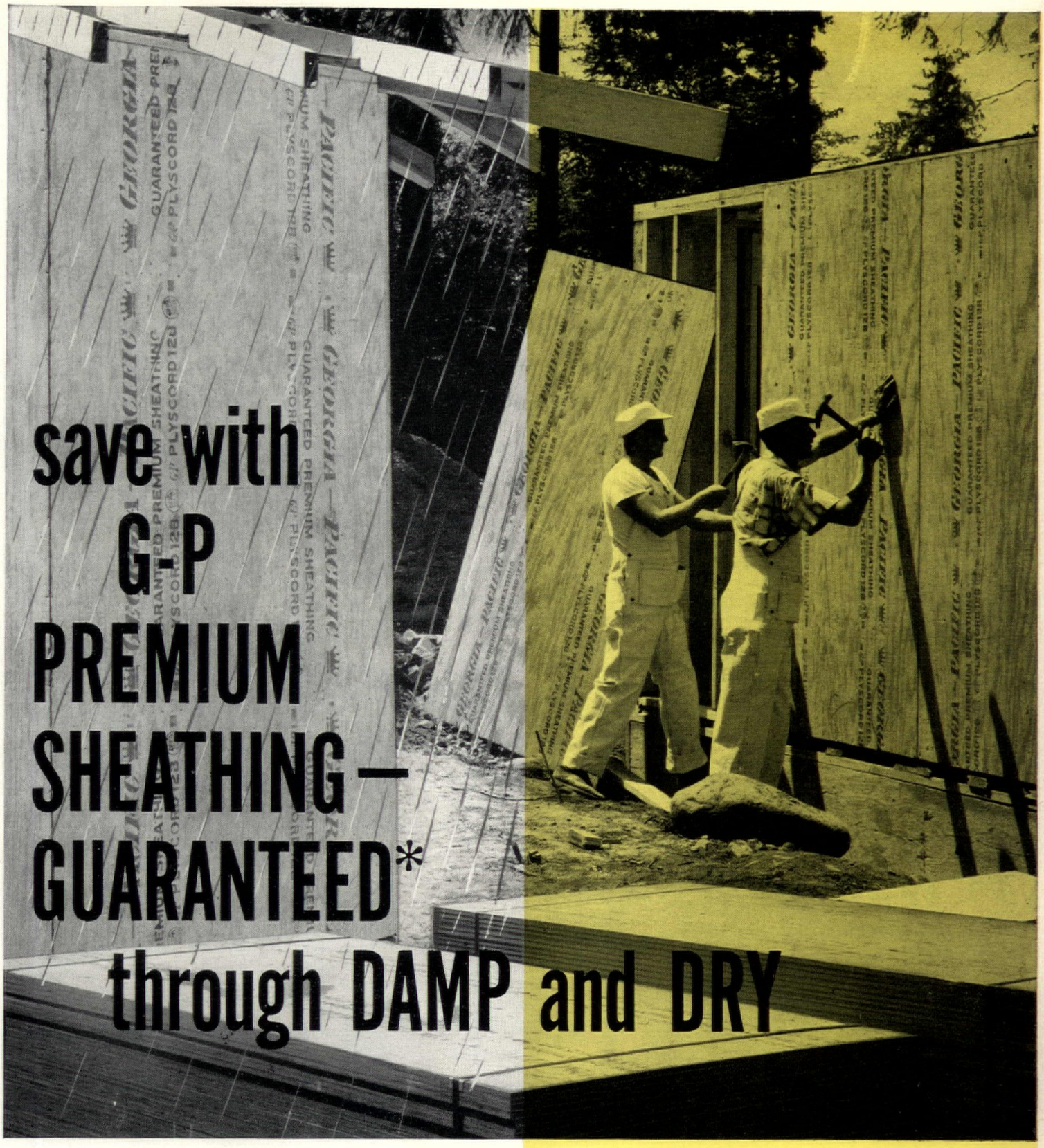
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*Paul McCobb, whose designs in furniture, fabrics, wallpaper, floor coverings and lamps have won international awards, now turns his talents to Blue Ridge Patterned Glass.



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Georgia-Pacific Premium Sheathing is *guaranteed* to store outdoors mold-free and without delamination up to one year! No delivery delays. You save time, speed work in any weather. Yet this superior Sheathing costs you only pennies a panel more! All standard sizes—5 thicknesses. Edge-sealed panels are packaged in steel-strapped bundles, 25 inches high, for easy, convenient handling.

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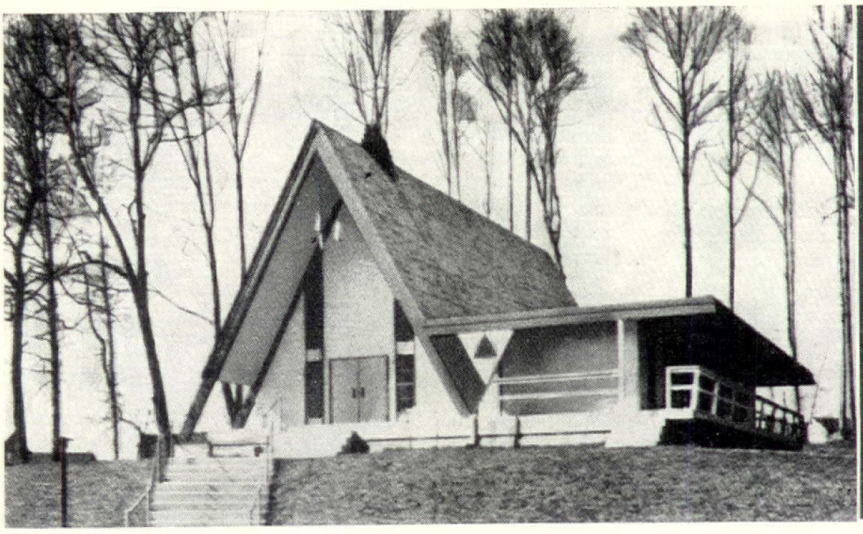
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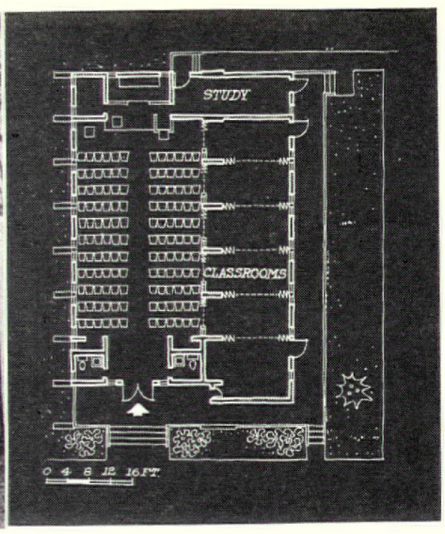
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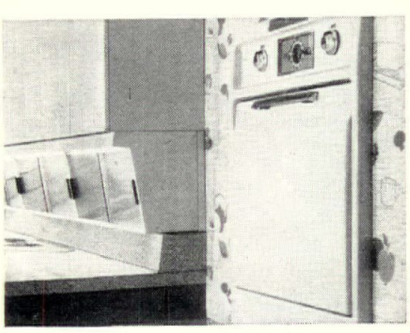
If your community needs a chapel, here's a prefab you can build

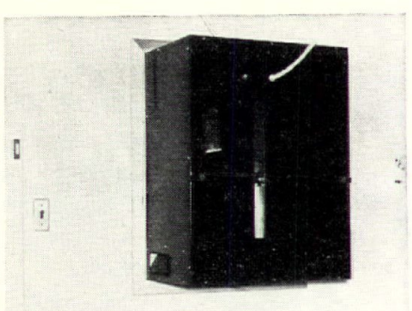
You're looking at one of four basic chapel designs by Creative Buildings, Inc, Urbana, Ill.

This model seats 144 and has a package price of about $11,000. Other models seat up to 300 and are priced up to $22,000. But you can get more space with any plan by adding 8′ bays.

The prefab package for each model includes a basic frame, light fixtures, decorative glass, altar accessories, chancel furniture, and an aluminum cross to mount on the roof of the chapel.

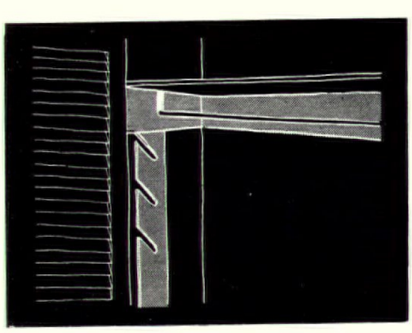
Creative Buildings uses a structural system of laminated trusses and 8′ panels. After erection, the panels can be painted or faced with brick, stone, or other materials.



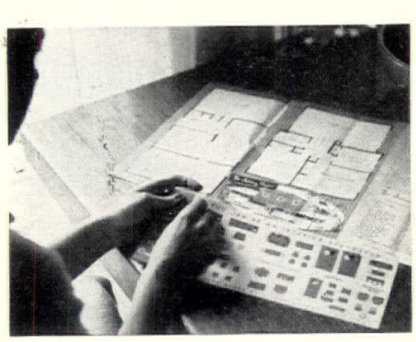


This oven is easy to look at, easy to maintain

That's because Bob Scarborough of Haddonfield, NJ installed it flush with the kitchen wall, let it protrude into the garage where space is not at a premium. The oven is easy to service from the garage side, looks as neat as a framed picture in the kitchen, where it is a good talking point for built-ins.



Adjustable clothes poles are an inexpensive but effective talking point in closets of Paul Bailey's Augusta, Ga houses. He notches 1x6 supports at varying heights so poles can be lowered for children or raised for adults.





Here's how you can help her arrange her furniture

Why bother? Because it's easier to sell a woman a house if you can get her thinking about placing her furniture. So say two widely separated builders—Lester Robbins, Rockland County, NY and Mayer-Raischer-Mayer, St Louis.

Robbins gives women visitors a grid-pattern floor plan and a card of furniture shapes (patent pending), which they can punch out (left) and then arrange on the plan.

MRM hands out floor plans of all 12 of its models, along with a sheet of furniture shapes which women cut out (right). Both the punch-outs and cut-outs are scaled to the floor plans.



Play up your features with a manufacturer's help. Sargent & Co helps Beir-Higgins, Allendale, NJ with a "Lucky Key Contest." Model-house visitors complete: "The feature I like most in the house is . . ." in 25 words or less, then drop their sentences into a hopper (above). Grand prize is $500; runners-up get radios. Sargent sponsors the contest, supplies prizes. /END

Safe, convenient

pushbutton circuits

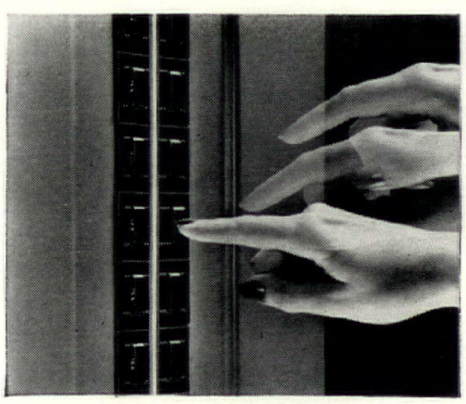
help sell homes

Only BullDog Electri-Center® panels with Duo-Guard Pushmatic® breakers safeguard circuits two ways. The thermal-bimetal action provides positive response to small overloads, while magnetic action protects against high overloads and shorts caused by faulty cords. What's more, main disconnects for each 100 amps of service prevent overloading of service entrance conductors.

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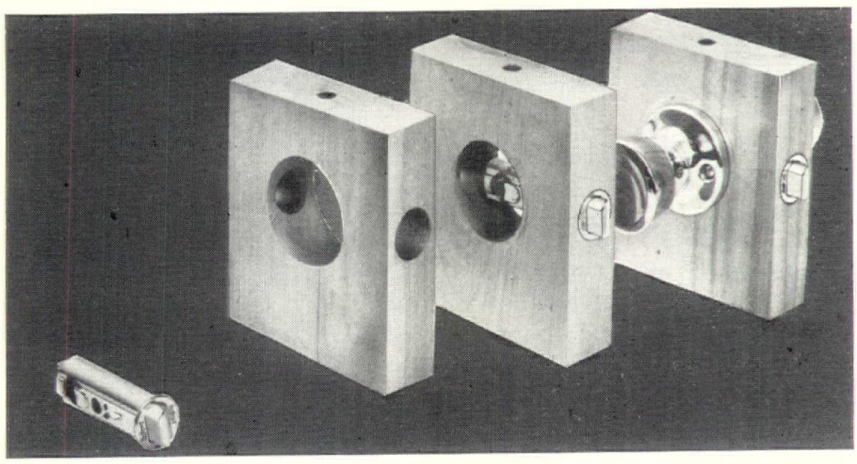
PUSH BUTTON . . . and service is restored! It's an exclusive feature of Pushmatic circuit breakers, ends fuse hunting, appeals especially to women.

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Biggest news in locks—fast, easy installation

Now locks go in place with a minimum of hand work—drilling, chiseling, mortising, assembly. In fact, two new locks (and more to come) need only two drilled holes to complete the installation. Other types fit with two straight saw cuts. Others snap in place. Others can be used with doors of either hand with no adjustment. Specially designed jigs and bits eliminate all measuring and locating for almost all types of locks.



Round face latch of new Kwikset 400 locksets eliminates all mortising and chiseling, all door edge screws. One hole for the lock and one for the latch are located and drilled and countersunk with a special jig and bits. The latch is then pressed in place, the lock inserted and screwed to the door. The new method is particularly adapted to fast, cheap shop assembly.

Kwikset, Anaheim, Calif.

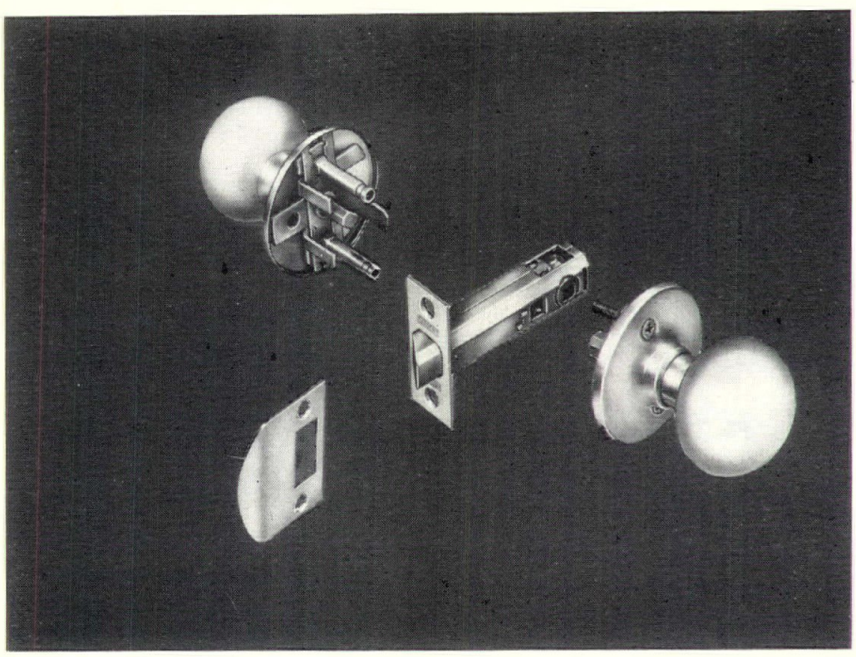
For details, check No. 2 on coupon, p 210



No mortising is needed to install new Yale 5280 series locksets. Only two drilled holes are required. The flexible lock front is simply located on the door edge and screwed in place. Jigs are available for shop installation but each lock comes with a cardboard template. Lockset consists of only three units: inside and outside knobs and roses and latch case.

Yale & Towne, White Plains, NY.

For details, check No. 3 on coupon, p 210

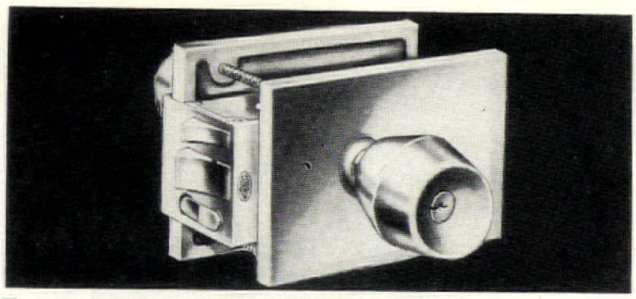




25-second assembly is claimed for new Sargent AlignaLock interior locksets. Inside rose, knob, and back plate and outside knob and rose are preassembled. Non-loosening fastening screws are preset. After door has been drilled and mortised for a latch plate, knob units are pressed into the latch assembly, snapped together, tightened.

Sargent & Co, New Haven.

For details, check No. 4 on coupon, p 210

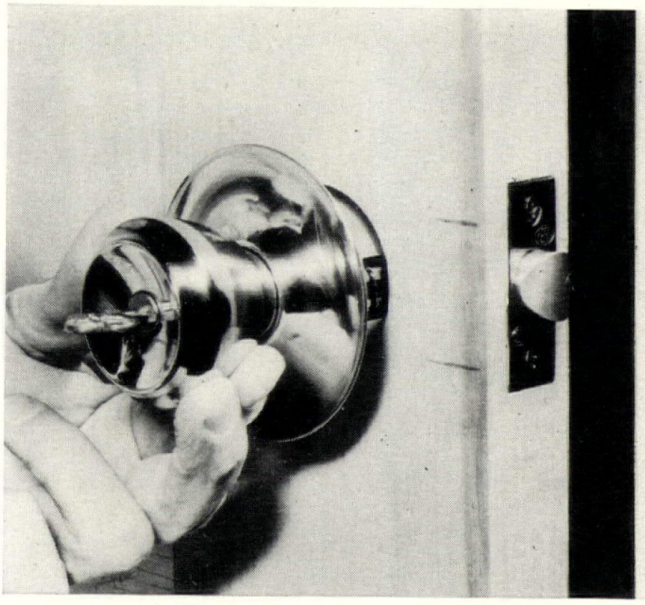


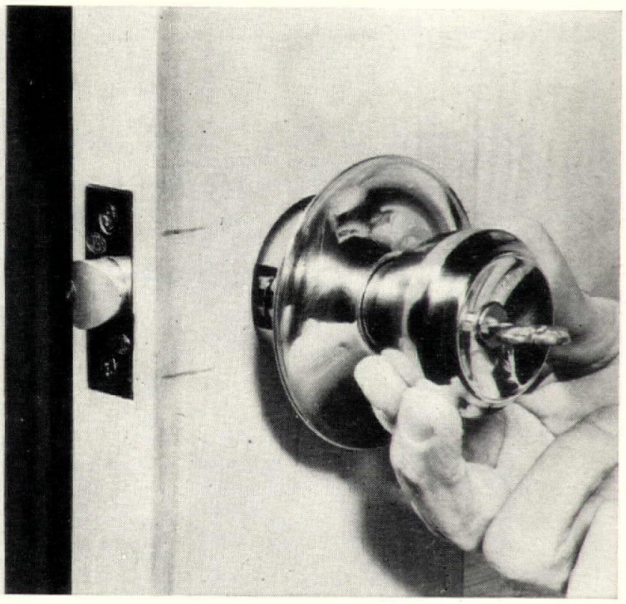
Two saw cuts are all you need with this new saw and jig (photo right) to install Russwin series 600 Unilocs. The two slots are sawed in the door stile, the block is knocked out, and the back of the cut squared off. Lock is then slipped in place and through bolts tightened to complete installation.

Russell & Erwin, New Britain, Conn.

For details, check No. 5 on coupon, p 210



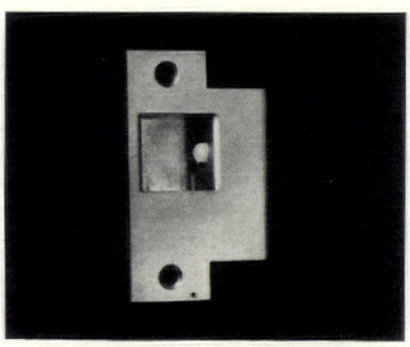




Horizontal keyway lock, an exclusive development of P&F Corbin, eliminates the need to stock right and left hand locks or to waste time disassembling the lock to change the hand. These locks cannot be installed upside down. (Regular locks must be installed with the tumblers above the keyway to keep out dirt and moisture.) To change the hand of horizontal keyway locks, the carpenter has only to flop the lock over to match the hand of the door and install it the way he would any other modern lock. Horizontal keyways are available in all Corbin lock lines.

P & F Corbin, New Britain, Conn.

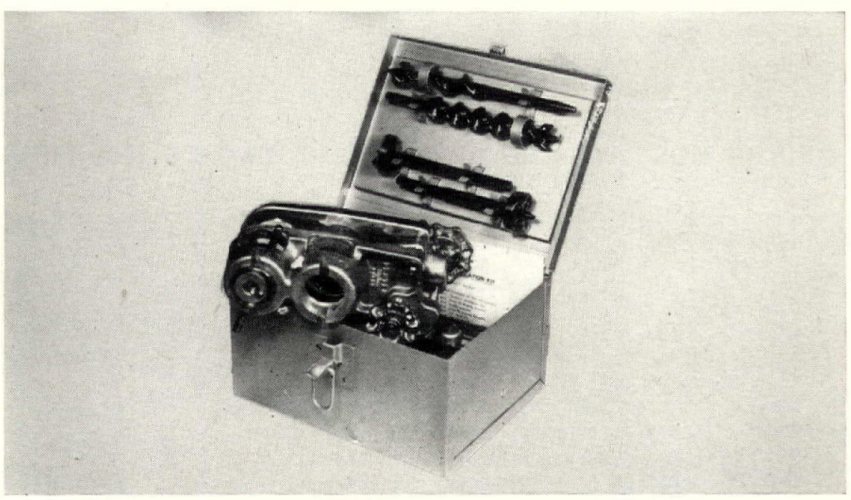
For details, check No. 6 on coupon, p 210



Adjustable strike can be used with most Russwin locks to assure precise latch bolt clearance and eliminate door rattles. After the latch and strike have been installed, the strike can be adjusted to the latch by means of a nylon set screw. When strike is properly adjusted, bolt is sure to latch easily and surely, without rattles.

Russell & Erwin, New Britain, Conn.

For details, check No. 5 on coupon, p 210



Full installation kit holds all the tools needed to install Dexter locks: jig to locate cross holes and edge holes for 2⅜″ and 5″ backsets, bits to bore all the holes, a strike locator, and strike and latch templates. Quick release permits fast and easy pullout of the cross-hole bit.

Dexter Locks, Grand Rapids, Mich.

For details, check No. 7 on coupon, p 210

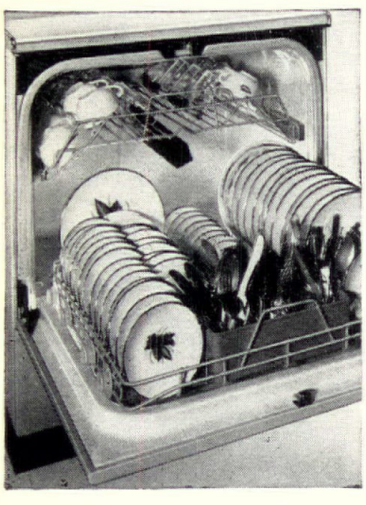
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NEW Youngstown



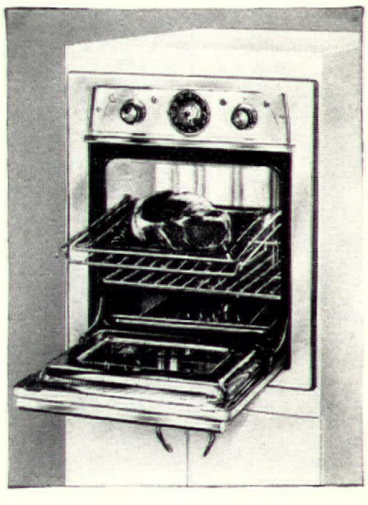
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6 inches wider than the average dishwasher, it holds a whole day's dishes for a family of five—over 200 pieces! Exclusive Jet-Tower action sends whirling jets of scalding-hot water over every piece for spotless results.



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Tappan's clock-controlled broiler-oven turns on, cooks, shuts off, all automatically. Eye-level controls. Lift-off door and porcelain oven liner for easy cleaning. Fastest electric surface elements made. 7 separate heats for every exact cooking need.

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DISHWASHER BUILT-IN RANGE COMBINATION

54 INCHES WIDE! $75 LESS!

SPECIAL 54

Saves 30" of floor space—regular installation of dishwasher and built-in range would take 7 feet!

You save $75 at least!

No counter top for *over* the dishwasher. No base cabinet for *under* the surface units. This "cooking-clean-up-center" costs at least $75 less than conventional installation.

You save hours of installation time!

No wall alteration! No cut-outs! No carpentry of *any* kind! A fast, simple set-up of the single unit and it's ready to run.

Sell customers you never could sell before!

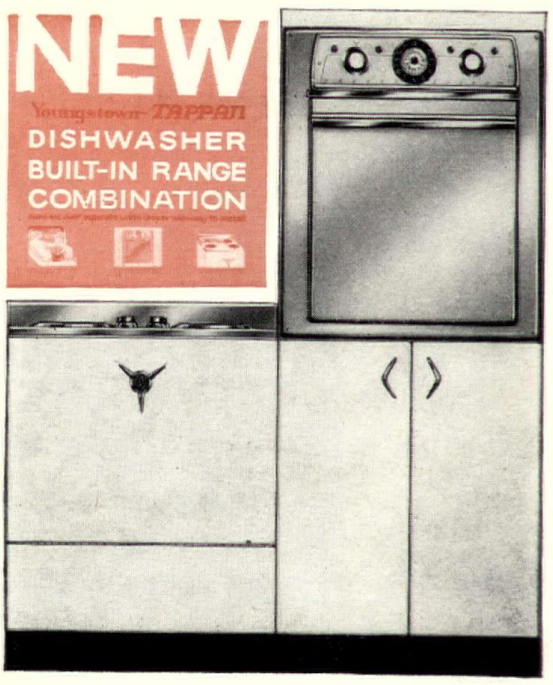
Now they can be sold! People with small kitchens who have admired the built-in look. People who would love to have a dishwasher—but just don't have the floor space. Sell the people with larger kitchens, too! What a wonderful start for customers who want to completely re-model their kitchens a little bit at a time, as they can afford it.

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get this FREE DISPLAY Free, attention-getting display piece in color fits neatly in back of counter surface units—dramatizes all the exclusive features of this exciting new combination. Get yours from your Youngstown Distributor.



Now you can sell the looks of your hardware

Custom hardware isn't the only hardware that looks distinctive today. Locksets, knobs, and rosettes are available in such variety (of which the facing page is only a sample) that you can offer any buyer a number of style options, all within your price group. Any of the major hardware manufacturers will be glad to work out such an option scheme with you. And the cost per house should not be more than $50 or so above what you would pay for the plainest budget-line equipment.

Recent styles (top row in photo at right) from Yale & Towne, a pioneer in hardware, range from the simple one-color ceramic Venus (left) to the gold and ceramic Gamebird (next right) which has a matching light-switch plate. Three new designs in metal (continuing left to right) are Beverly, Oliver, and Medwood in Yale's 5400 series. Beverly and Medwood come in brass, bronze, and aluminum; Oliver in brass, bronze, and silver plate.

Yale & Towne, White Plains, NY.

For details, check No. 9 on coupon, p 210

New Sargent designs (second row, left) include two rectangular machined escutcheons, one personalized with a monogram, developed for use with AlignaLocks and Sentry-Locks. Both escutcheons come in brass or bronze with contrasting aluminum panels. The two-tone Garfield Integra-Lock design contrasts aluminum with polished brass or bronze, dull bronze and chrome with bright bronze and chrome.

Sargent & Co, New Haven.

For details, check No. 10 on coupon, p 210

National Locksets (second row, second from right) are clean and modern to go with any style of architecture, come in a variety of bright and satin finishes in brass, bronze, and aluminum, to give a quality all-brass lock at a builder's price.

National Lock, Rockford, Ill.

For details, check No. 11 on coupon, p 210

Two-tone Dexlocks (second row, far right) come in combinations of brass and black or bronze and chrome with contrasting face inserts in the tulip-shaped knob. Available in key-in-knob, privacy, and passage sets.

Dexter Lock, Grand Rapids, Mich.

For details, check No. 12 on coupon, p 210

Wide range from Russwin (middle row, left to right) includes big, openwork escutcheons like Rex, classic Unilocks with rosewood knobs, dished Prisma escutcheon with oval Era knob, an ebony knob with ebony escutcheon, and a bright Tempo knob in a Bella escutcheon. Line has many other escutcheons and knobs including plain ceramics and various brass, bronze, chrome, and aluminum finishes.

Russell & Erwin, New Britain, Conn.

For details, check No. 13 on coupon, p 210

Challenger stays modern (fourth row, left) with Sapphire, a 6⅝" round escutcheon, and Flite, a jet-styled 9" x 5⅝" design. Both come in polished brass, bronze, or aluminum. Both need a 5" backset lock and may be used with any Challenger 500, 800, or 900 series knob.

Challenger Lock Co, Los Angeles.

For details, check No. 14 on coupon, p 210

Kwikset stays classic (fourth row, right) in adding Balboa design to the new Imperial line with which the company is entering the higher price field. New pierced escutcheons to go with both 400 and Imperial locksets are also restrained, but show company's interest in new markets.

Kwikset, Anaheim, Calif.

For details, check No. 15 on coupon, p 210

Samples from Corbin line (bottom row, left to right) include hand painted ceramic knobs and rosettes combined and contrasted in several designs, satin and bright metal rosettes with solid or laminated exotic woods, and the squared-off Vegas knob and its matching rosette. Line also includes classic styles in Unit Locks and heavy duty locksets.

P & F Corbin, New Britain, Conn.

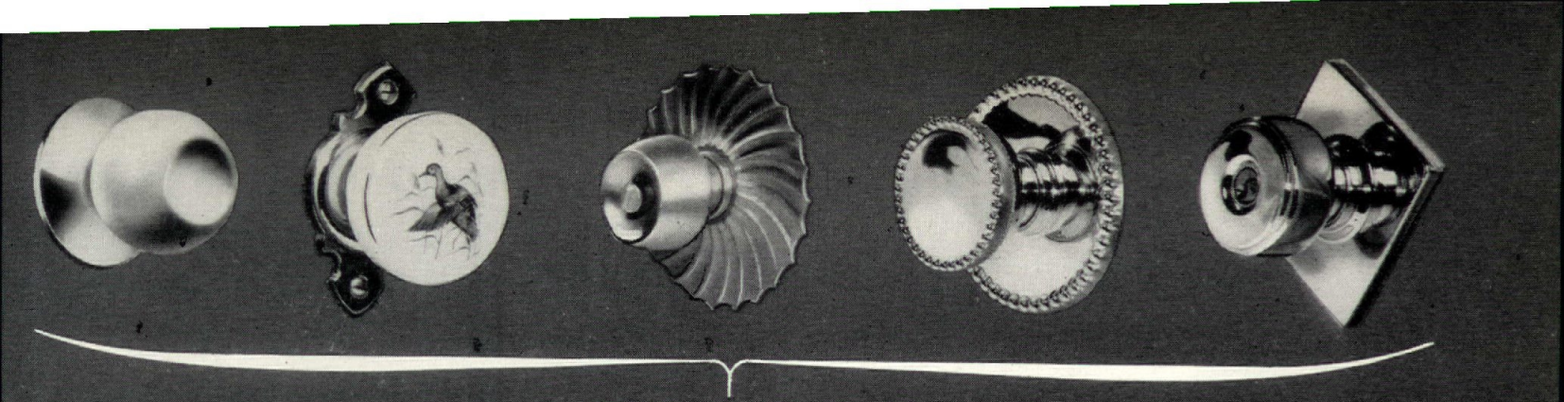
For details, check No. 16 on coupon, p 210

Weiser's dimensional color (not illustrated, it's that new) is achieved by combining bronze, brass, or satin chrome with matte black. This treatment is featured in Crown Royal sculptured knob faces.

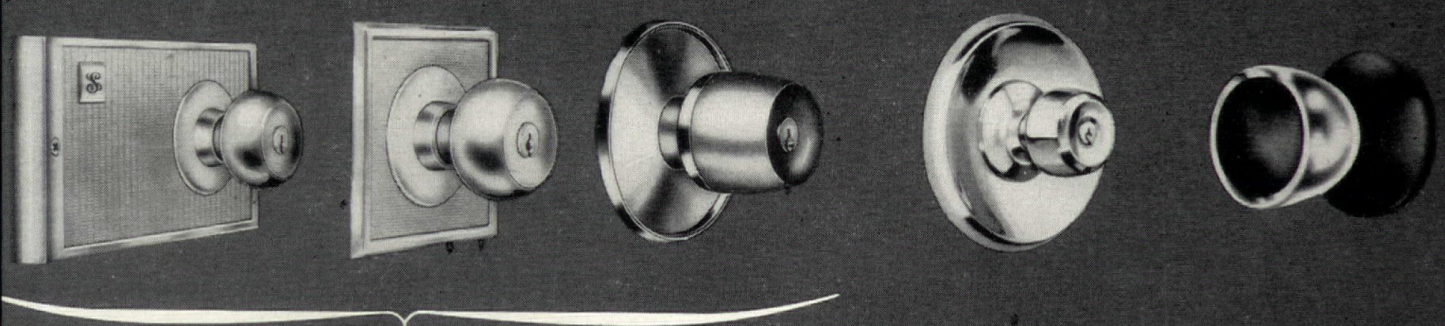
Weiser, South Gate, Calif.

For details, check No. 17 on coupon, p 210

continued on p 178



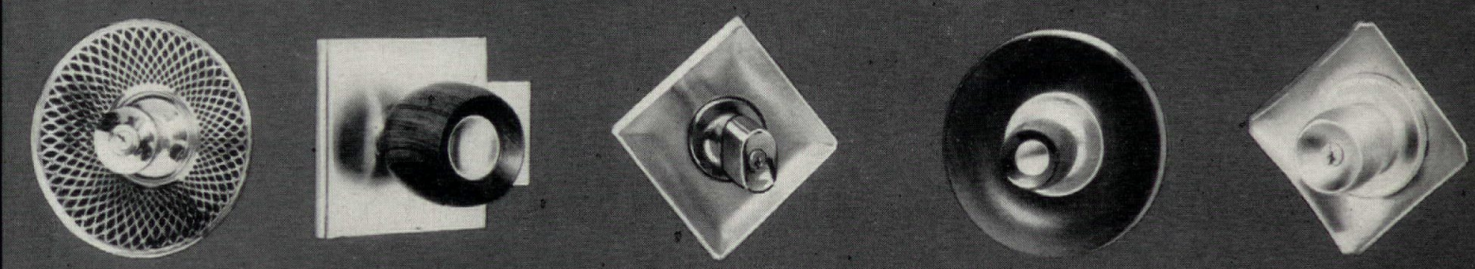
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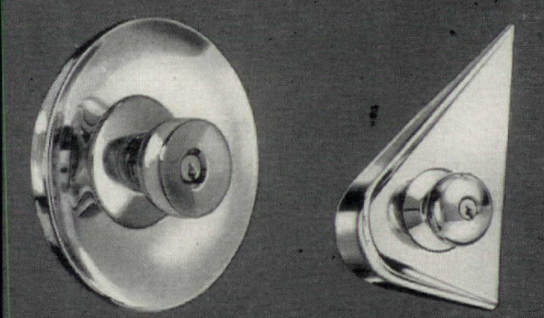
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NATIONAL

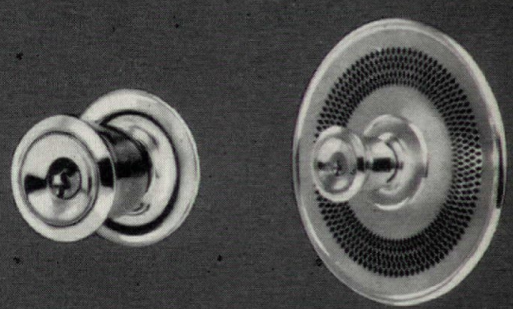
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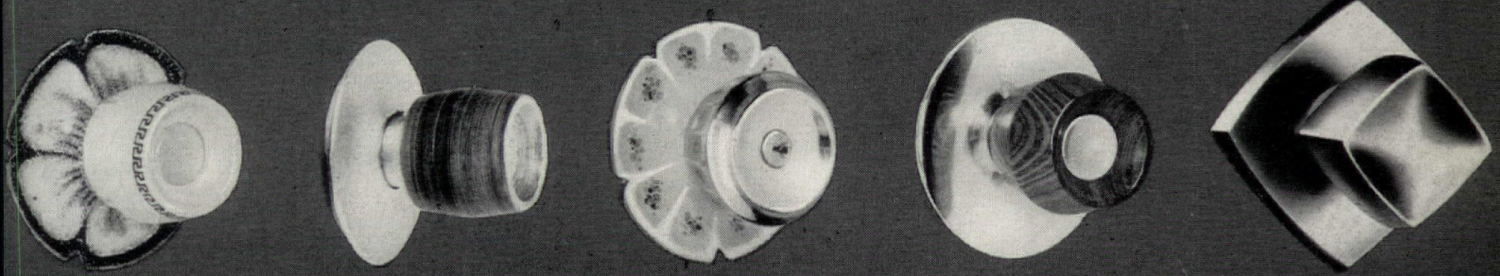
RUSSWIN



CHALLENGER

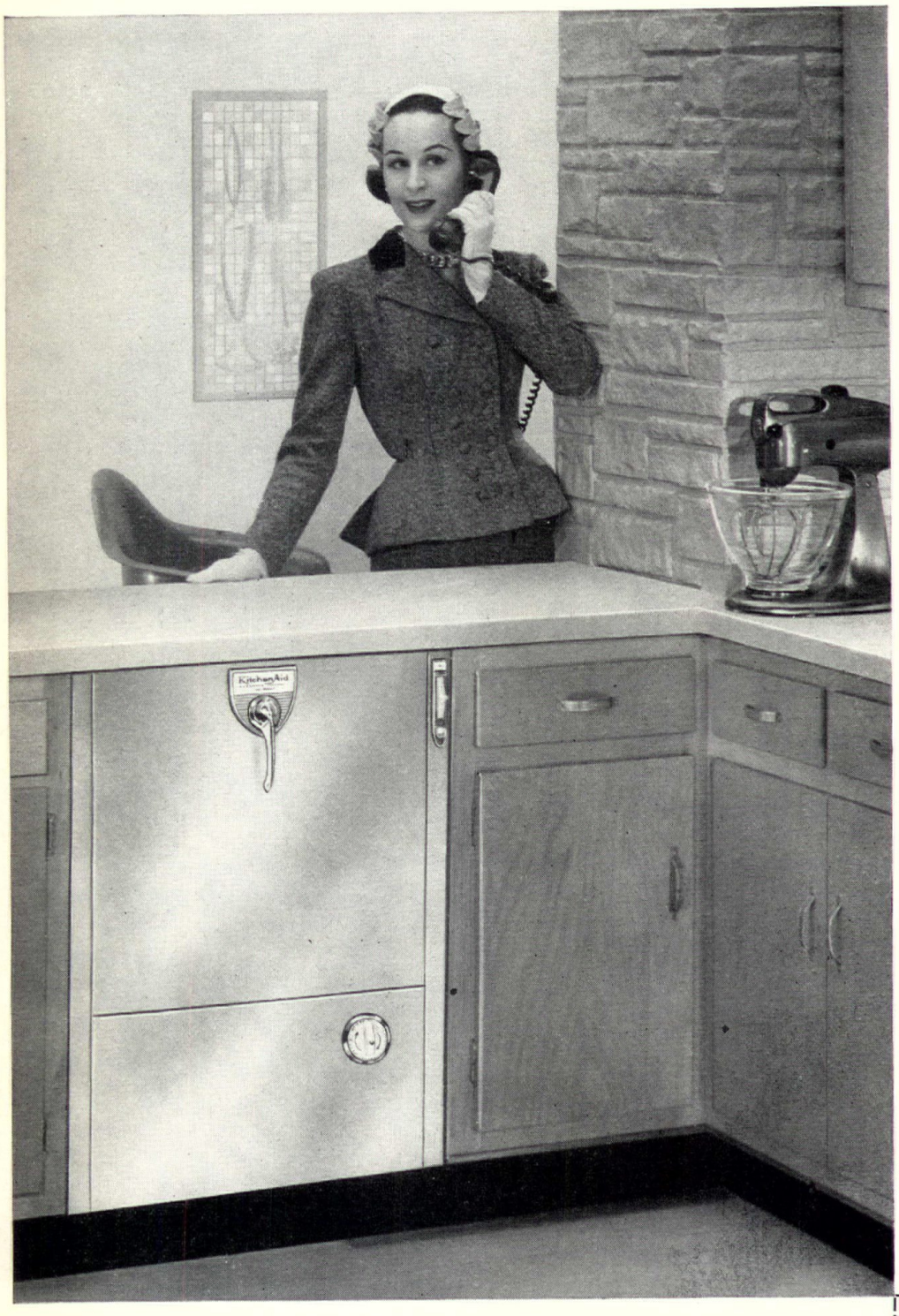


KWIKSET



CORBIN

Use KitchenAid metal finishes to complement your wood kitchens!



Built-in dishwasher with Antique Copper or Stainless Steel front adds richness to kitchen designs

A performance-proved KitchenAid dishwasher will add sales appeal to any home you build. But, especially complementary to any of your natural wood finish kitchens is a built-in KitchenAid dishwasher finished in glowing Antique Copper. Equally as harmonious and attractive with natural wood finishes are KitchenAid stainless steel front dishwashers.

But, whether you choose the beauty of KitchenAid in copper for your wood kitchens ...or one of the other decorator finishes to blend with white or colored cabinets of either metal or wood, you can be sure that your customers are getting *the finest dishwasher made.* All KitchenAid models have the same exclusive washing and drying features, the same self-cleaning dual strainer system...the features that guarantee tableware is washed clean and dried bright!

With KitchenAid, installation is easy and economical for any model in the line. Special construction permits unit to slide in easily over roughed-in plumbing. All connections are made from the front.

Add another mark of quality to your homes by building in a KitchenAid automatic dishwasher...and for your wood kitchen cabinet designs, consider KitchenAid in copper or stainless steel. You'll like the sales appeal and results!

KitchenAid®
dishwashers The Finest Made...by Hobart

The world's largest manufacturer of food, kitchen and dishwashing machines

KitchenAid Home Dishwasher Division
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Troy, Ohio (In Canada: 175 George St., Toronto 2)

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Firm.....

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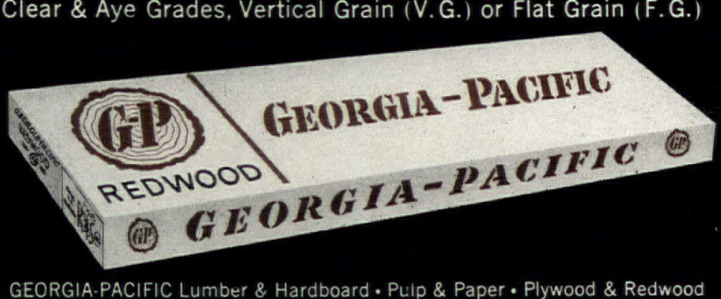
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Clear & Aye Grades, Vertical Grain (V.G.) or Flat Grain (F.G.)



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Georgia-Pacific, Dept. HH1058, Equitable Bldg., Portland, Oregon. Send information on Packaged Redwood Lumber.

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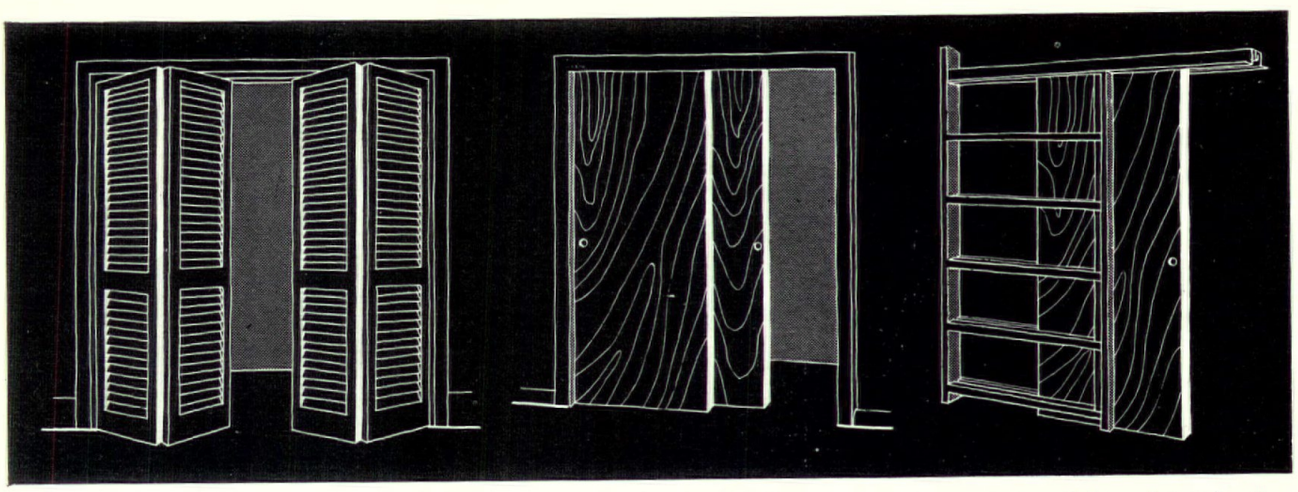
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The big trend is to sliding doors

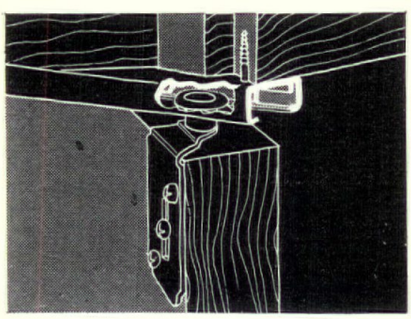
Eighty percent of all new houses will have at least three, says one industry leader. And more and more of the hardware will be ready installed or designed to install quickly. Most manufacturers now have lines to cover all price classes in all of the three major types (see drawings below). More pivots and hangers are being made self-adjusting or quick adjusting and more parts are being made to adapt to a wide range of sizes to reduce inventories.



BI-FOLDING DOORS fold in two panels, allow 90% or more access. Wall side hangs on pivots or hinges, free side rides on vertical or horizontal nylon wheels in an aluminum track (but see Ready Hung Door, *p 180*). Aligner at base holds doors in closed position.

BY-PASSING DOORS fill opening, allow 50% access. Doors roll full width on nylon wheels in parallel aluminum tracks. Small nylon guides on floor keep doors in line. Hangers are adjustable. Tracks may include fascia or take separate aluminum fascia or wood trim.

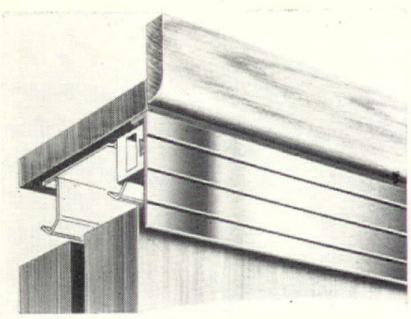
POCKET DOORS roll into a 2x4 stud wall on nylon wheels, hang from an aluminum track suspended from a steel header. Header and steel split jambs and stanchions prevent warping, hold wood nailers for finished wall. Door rides between nylon guides on split jambs.



New Kennarama packaged door and hardware continues company's trend to prefabbed units. Kennarama doors are louvered Ponderosa pine, hardware is flat-button, low silhouette 2300 series. Full Kennatrack sliding hardware line features four-wheeled hangers in double-railed track in top series, two-wheeled hangers on parallel railed track in medium line, one-wheeled hangers on I-track in lower priced line. Heavy-duty pocket door has four steel ball-bearing wheels on each hanger. All are designed for quiet operation.

Kennatrack Corp, Elkhart, Ind.

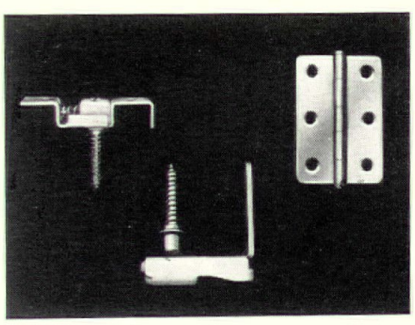
For details, check No. 18 on coupon, p 210



Stanley clip-on fascia is a new addition to company's full sliding and folding hardware line. Nylon clips slip on ends of track, aluminum fascia snaps in place. Also new, a bifold line designed for factory assembly and fast installation: door slips in place on bottom pivot and top socket, single nut top and bottom adjusts closure. Rubber snugger cuts play or rattles. Stanley hinges are round cornered for router mortising. Hangers for all Stanley hardware adjust on the hanger, do not have to be taken off door.

Stanley Works, New Britain, Conn.

For details, check No. 19 on coupon, p 210

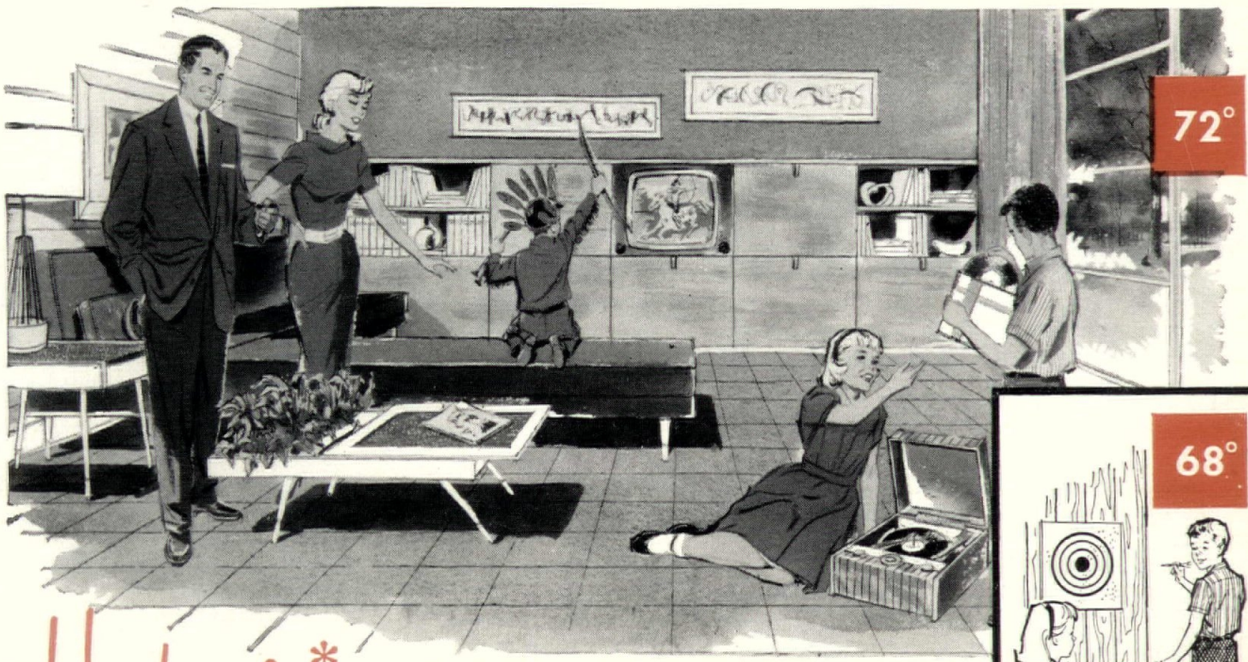


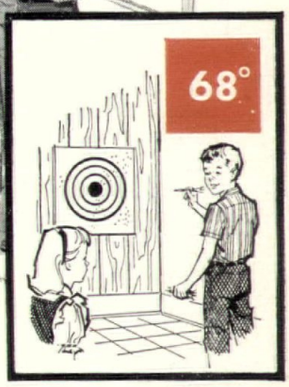
McKinney bifold hardware includes spring-loaded top and bottom pivots to assure tight closing, keep all gap behind trim. Hinges are round cornered so mortise can be routed without hand chiseling. All hardware can be installed before door is hung, mounts with minimum headroom. Competitively priced sliding hardware uses a single hanger for by-passing doors ¾″ to 1⅜″ thick, adjusts up, down, or across to compensate for warpage. Deluxe set uses extruded aluminum track, economy set has rolled steel track.

McKinney Mfg Co, Pittsburgh.

For details, check No. 20 on coupon, p 210

continued on p 180







Hydronics* WILL GIVE YOUR HOMES THE EDGE ON COMPETITION

Imagine the extra buying inducement offered by a home where with *only one* heating plant it is possible to have one, two, three or more different temperatures! 72° in the living room, 68° in the game room, 65° in the bedrooms...a temperature to suit the functions of each home area.

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This *silent* electric pump is the key unit of a B&G *Hydro-Flo* System. Under thermostatic control it circulates hot water from the boiler through the heating system to maintain a uniform temperature.

**Hydronics: The science of heating and cooling with water.*



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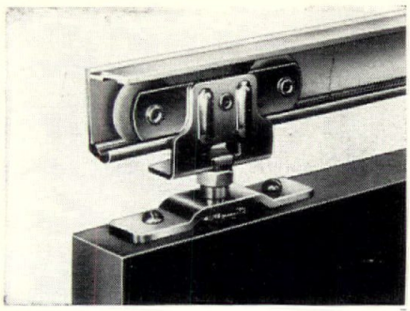
Hydro-Flo SYSTEM

BELL & GOSSETT COMPANY

Dept. FL-10, Morton Grove, Illinois

Canadian Licensee: S. A. Armstrong, Ltd., 1400 O'Connor Drive, Toronto 16, Ontario

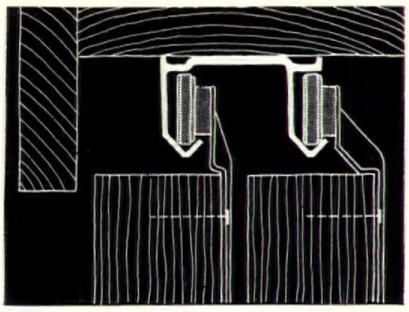
New products



Three new Yale lines of sliding hardware span residential price brackets. Deluxe group, to take doors to 100 lb, has tandem-wheeled, top or side mounted hangers of heavy gauge steel. Cost-saver group, for 75 lb doors, has single-wheeled hangers. Both ride in parallel railed aluminum track on nylon wheels with permanently oiled bronze bearings. Steel line economy hardware has single-wheeled, side mounted hangers and galvanized track. Sets include track, hangers, floor guide, and pulls.

Yale & Towne, White Plains, NY.

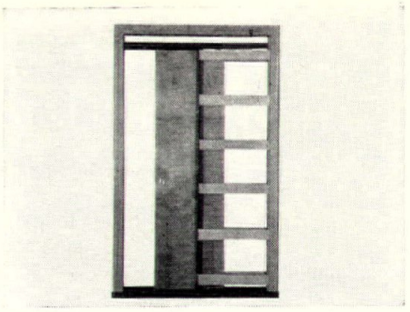
For details, check No. 21 on coupon, p 210



New Washington hardware for by-passing wardrobe doors holds doors 5/8" to 1 3/8" thick on a single set of deeply embossed, rigid hangers. Doors are hung after trim is in place by tilting them 12° and slipping hangers into jump proof, heat treated aluminum track. Only 1¼" of headroom is required. Nylon wheels roll on axles coated with Teflon, a tough, self-lubricating plastic. Nylon floor guide adjusts to door thickness. Sets are packaged for 4', 5', 6' and 8' openings.

Washington Steel Products, Tacoma.

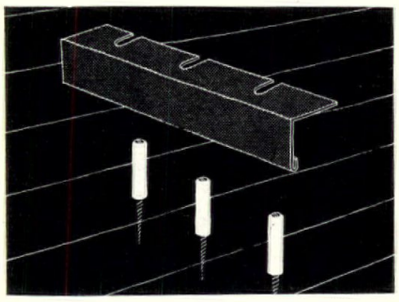
For details, check No. 22 on coupon, p 210



Sterling pocket doors for drywall or plaster construction are new in the company's line, have adjustable steel header and jambs, extruded aluminum track. Tandem hangers have 1" nylon wheels with permanently oiled bronze bearings, allow 2¼" to 3" headroom. Rubber bumper and aluminum door guide are included. Also new, series 700 hardware for by-passing doors with pivoted tandem wheel, cadmium-plated hangers for doors to 100 lb, single wheels to 50 lb.

John Sterling Corp, Richmond, Ill.

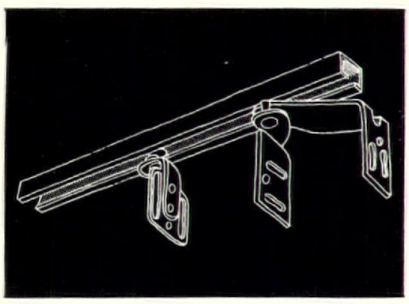
For details, check No. 23 on coupon p 210



New Leigh features include an add-on fascia and simple screw-on nylon floor guides. Low price lines offer a choice of aluminum or steel track without fascia; medium price lines have aluminum track and integral fascia. Reversible nylon wheeled hangers serve all door thicknesses. Five sizes: 2' 2'4", 2'6", 2'8", 3,' all 6'8" high.

Leigh Building Products, Coopersville, Mich.

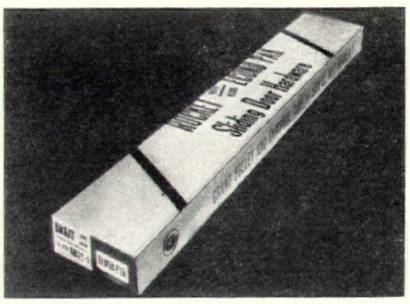
For details, check No. 24 on coupon, p 210



Har-Vey Slide-A-Fold hardware features a new reversible jamb hinge for left or right hand installation. Hinge has built-in doorstop. Also new, a Handi-Pak pocket door frame to fit all door sizes. Header-track assembly telescopes to fit and wood header trims readily to size. Nylon tandem rollers have oiled-for-life bronze bearings.

American Screen Products, Northlake, Ill.

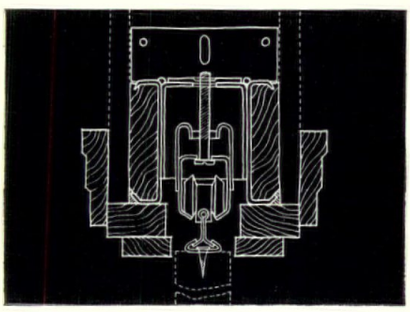
For details, check No. 25 on coupon, p 210



Grant Econo-Pak shows trend to more convenient packaging. Econo-Pak holds 12 sets of hardware, each in a Mylar envelope. Grant's line includes all types of sliding door hardware for loads from 25 to 300 lb. Tracks are aluminum or steel; rollers are nylon wheels or steel ball bearings in single, tandem, twin, or double twin arrangements.

Grant Pulley & Hardware Corp, West Nyack, NY.

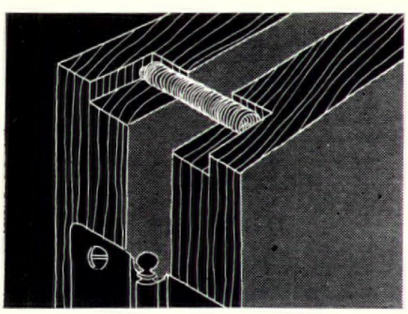
For details, check No. 26 on coupon, p 210



Big-A pocket doors have a two-way adjustable bolt-suspended track. Suspension bolts raise or lower door to align closed door and jamb. Lever bolt adjusts door when open. Hanger assembly is freed from door by removing retainer plate. Paired nylon wheels. Six widths: 1'6", 2', 2'4", 2'6", 2'8", 3'.

Big-A Mfg Co, Amarillo, Tex.

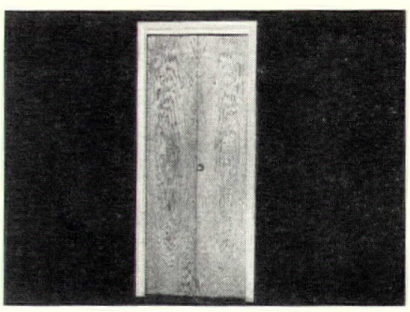
For details, check No. 27 on coupon, p 210



Ready Hung Doors use round-corner butts to give 100% access with bifold units. No pivots or guide tracks are used. A spring device (above) controls folding action. By-passing units have a two-bolt suspension which frees the track from the header, allows the header to warp without deflecting the track.

Ready Hung Door, Fort Worth.

For details, check No. 28 on coupon, p 210



Rezo-Fold doors fit the trend to more prefabrication, are packaged folding grid-core doors, complete with hardware. Parts are cut to exact widths (2', 2'6", 2'8", 3', 4', 5', 6') and height (6'8½") and panels are pre-hinged and pre-drilled for pivots and four-wheeled hangers. No floor guides are needed.

Paine Lumber Co, Oshkosh, Wis.

For details, check No. 29 on coupon, p 210

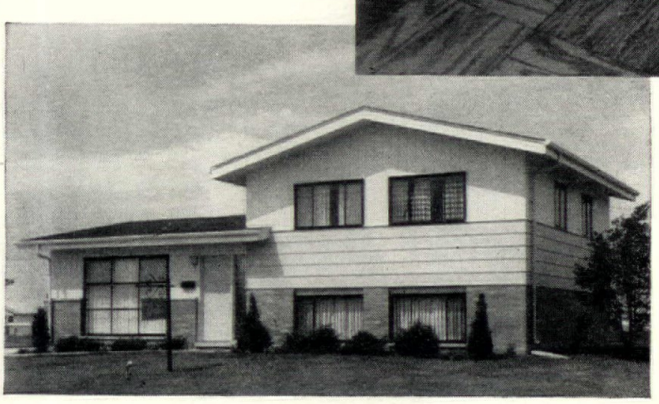
continued on p 183

"Prospective Home Owners' Favorable Reception of Wood-Mosaic Block Floors is Fabulous"

Leonard Weiner
Director of Sales, Park Forest Homes, Inc.



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- ECONOMICAL
- EASY TO INSTALL
- EASY TO KEEP CLEAN
- STAIN RESISTANT
- DURABLE
- NO WARPING
- GUARANTEED



This house in Park Forest has been inspected by 150,000 people. Wood-Mosaic's prefinished hardwood oak block floors, installed in the living room and dining room areas have withstood this tremendous inspection traffic (without the protection of runners or rugs) and still retain their original beauty. Wood-Mosaic's famous "Diamond Lustre" finish stands up under the most rigorous wear.

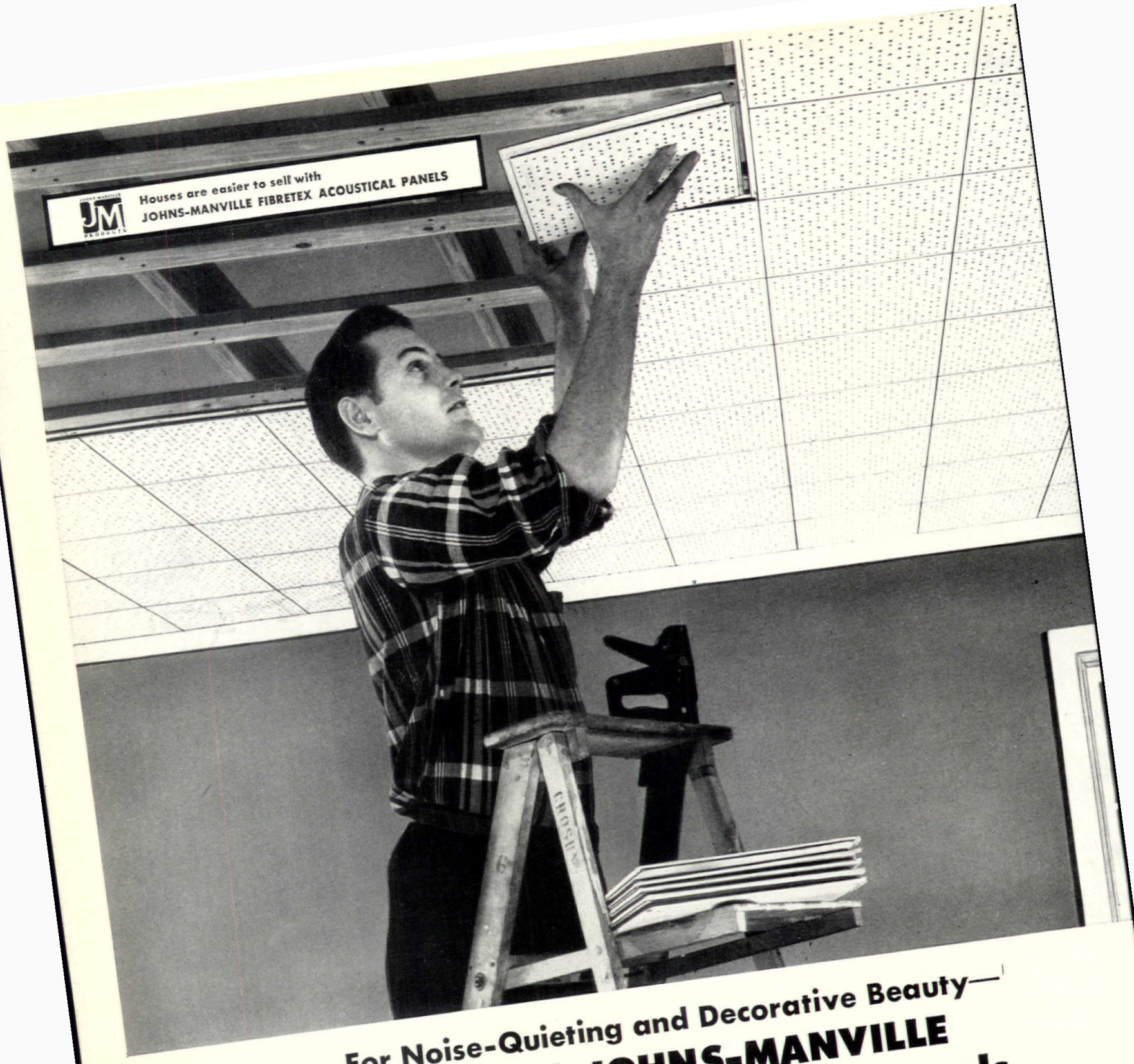
THE village of Park Forest, a 115 million dollar suburban project, 27 miles south of Chicago, developed by American Community Builders, has attracted nation-wide attention. Park Forest is a permanent tribute to Philip M. Klutznick, Nathan Manilow, Sam Beber and Jerrold Loebl who said they were not interested in just building houses but in "creating a better life for American families."

Park Forest homes are of the Ranch and Split-Level types. A special feature in all Park Forest split-level homes is Wood-Mosaic's toast-brown Oak laminated hardwood block floors. These floors are laid on concrete on-grade in the living-room and dining-room areas. Installation was done for American Community Builders by Cipolla-Zerante of South Chicago Heights. To date Split-level homes have outsold Ranches 5 to 1.

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For Noise-Quieting and Decorative Beauty—

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More and more new home prospects, seeking the latest advances in modern comfort, are demanding noise-control treatment in the homes they are buying.

Johns-Manville Fibretex Acoustical Ceiling Panels are drilled in uniform or random patterns with hundreds of noise-trapping holes that absorb up to 75% of the room noise that strikes them. They create a look of luxury and decoration in ceilings. They have home-buyer appeal that helps sell today's new homes.

These ceiling panels, 12″ x 12″ in size, come prefinished, painted in white, ready to install as a handsome finished ceiling.

Project builders are installing Fibretex Acoustical Panels in the ceilings of family rooms, playrooms, workshops, studies, bedrooms, kitchens, dining areas and living rooms.

J-M Fibretex Acoustical Ceiling Panels are easy to apply. They go up quickly, cemented to plaster or plasterboard; nailed or stapled to 1″ x 3″ wood furring. Fibretex has the famous Johns-Manville lightning joint which conceals all fastenings and presents a neat joint. Time and labor costs are reduced to a minimum.

• • •

Why not check into the advantages of installing Johns-Manville Fibretex Acoustical Ceiling Panels in new homes you are building or planning to build. We'll be glad to send you complete information. Write: Johns-Manville, Box 111, New York 16, New York. In Canada: Port Credit, Ontario.

JOHNS-MANVILLE

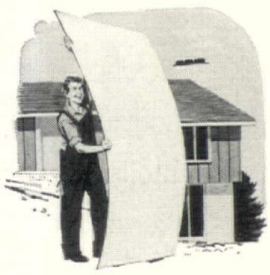
THESE OTHER JOHNS-MANVILLE BUILDING MATERIALS MAKE HOMES EASIER TO SELL



Seal-O-Matic® Shingles, the only self-sealing shingle proved on over 300,000 homes. Resists wind, rain, hurricane. Saves costly roof repairs. Attractive colors and blends.

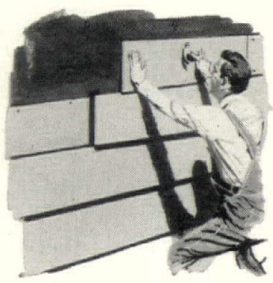


Spintex® Insulation saves the home buyer up to 30 cents on every heating dollar. Keeps rooms up to 15 degrees cooler in summer—a "must" to make air conditioning practical.



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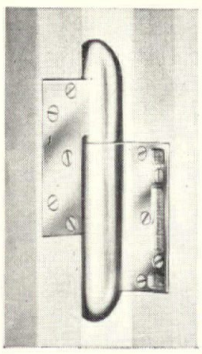


Terraflex® Vinyl Asbestos Floor Tile, keeps its "first day" beauty Easily kept spick-and-span, it has great appeal to home buyers.

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Ask your J-M representative about the 7-Star advertising and merchandising plan to help you sell more homes.

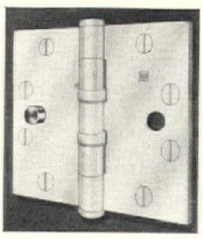
New ideas in door hinges



Door control hinge, called Hydro-Hinge, not only hangs interior doors with a neat, modern looking knuckle hinge but also supplies some closing pressure and hydraulic damping action. Hydro Hinges are fitted to the door and jamb like conventional butts but the concealed spring and hydraulic elements can be adjusted to give various closing rates and latching speeds. In light duty, these hinges can be used in place of separate door closers. Offered in bright or dull finish in brass, bronze, or chromium, or prime coated for on-the-job painting.

Bakewell Products, South Pasadena.

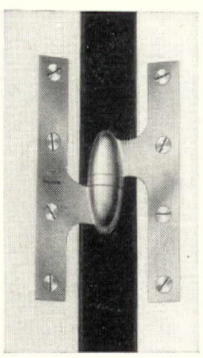
For details, check No. 30 on coupon, p 210



Safety stud hinge adds extra security to outward opening doors (or wherever you want added protection against breaking and entering).When the door is closed, the stud in one leaf (at left in photo, left) engages a hole in the other leaf. Then, even though the pin is pulled from the hinge, the door cannot be removed from the frame. The Safety Stud feature is available on all Hager ball bearing and template plain bearing butt hinges at extra cost. For medium security, Hager hinges come with a set screw in the barrel to inhibit pin removal.

C Hager & Sons, St Louis.

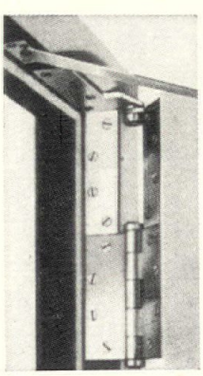
For details, check No. 31 on coupon, p 210



Modern styling marks Stanley's olive knuckle hinges, designed for use on interior doors and cabinet doors. When closed only the small trim knuckle shows. Olive knuckle hinges are made in three sizes—5″ for 1⅜″ doors, 6″ for 1¾″ doors, 3″ for cabinet doors—and in three finishes—polished wrought brass on bronze, heavily plated and polished wrought steel, and preprimed for later painting. Interior door hinges have permanently oiled ball bearings.

Stanley Works, New Britain, Conn.

For details, check No. 32 on coupon, p 210

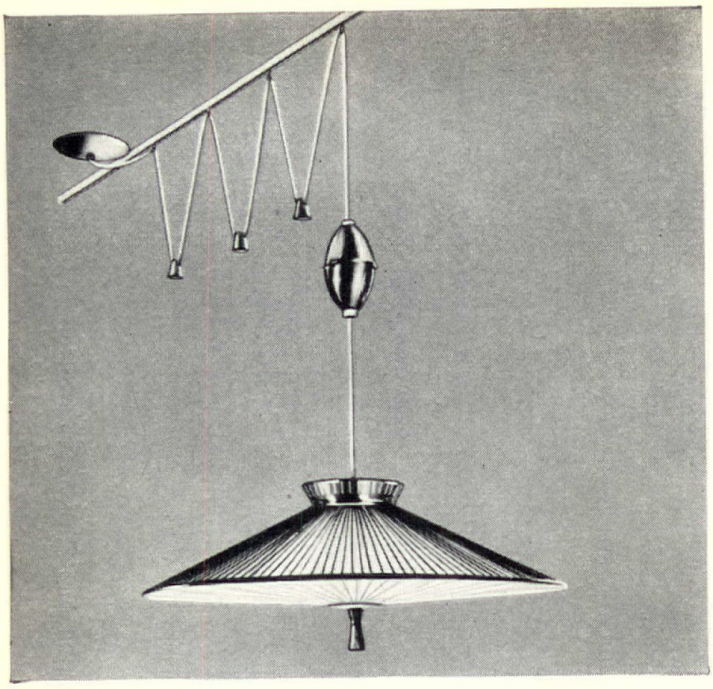


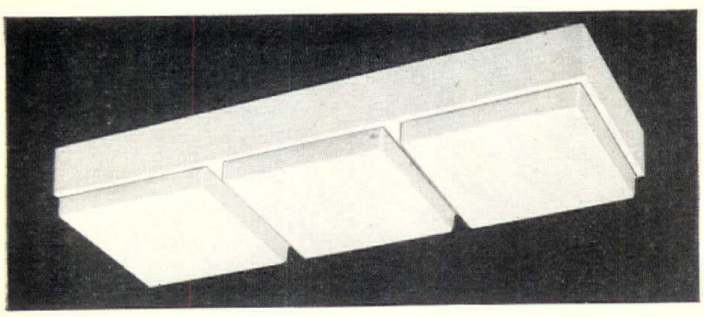
For heavy doors or for use with door closers, Lawrence reinforcing pivot and hinge sets take the added thrust-leverage by dividing the load between jamb and lintel. Also, because of the machined fit between the pivot leaves, assembly of the leaves automatically compensates for minor variations in clearance between the door and jamb. Pivot and hinge sets are made of 0.190 gauge brass, bronze, or primed or plated steel. Stainless steel pivot pin bears against Oilite bronze, extra heavy hinges turn on ball bearings. For use with wood or steel doors.

Laurence Bros, Sterling, Ill.

For details, check No. 33 on coupon, p 210

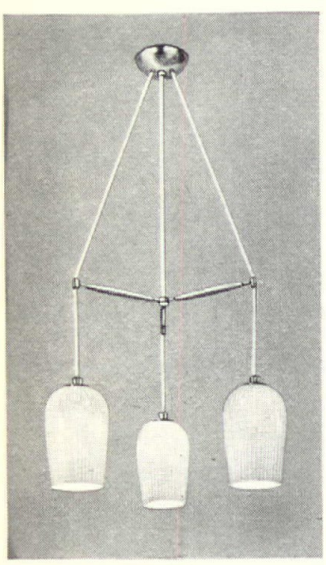
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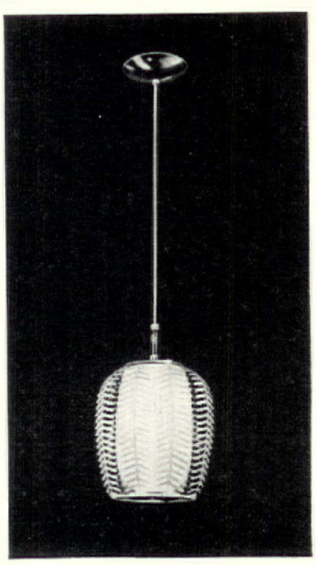


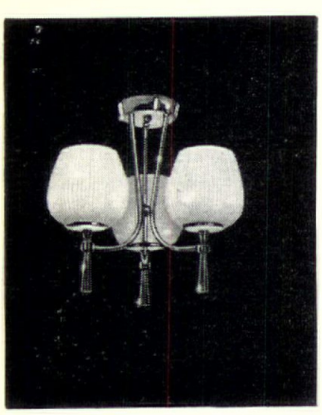


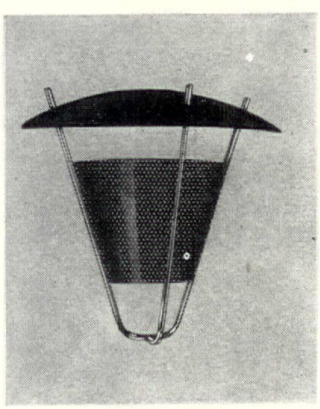
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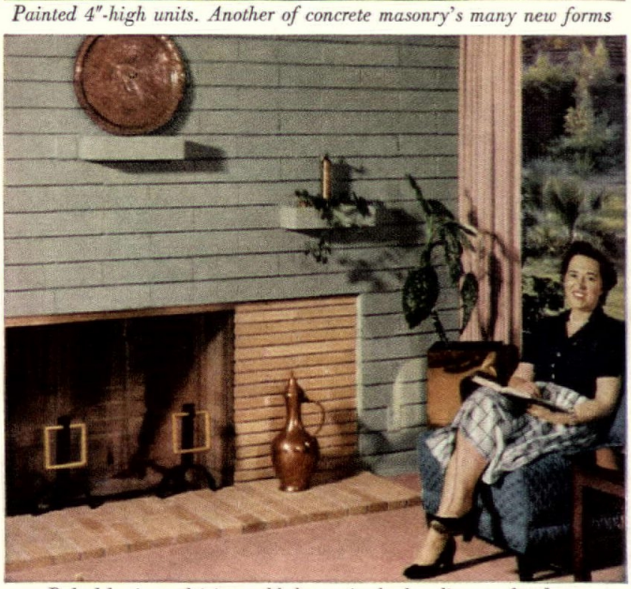
Living concrete in integrally colored 2″-high split block



Painted 4″-high units. Another of concrete masonry's many new forms



Coarse-textured units in stacked bond for design interest



Raked horizontal joints add dramatic shadow lines to fireplace

Masonry patterns that bring new charm for today's homes...

NEW-TYPE **living concrete**

A whole new design opportunity is opened by today's modern forms of concrete masonry.

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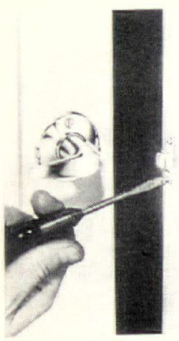
The growing popularity of *living concrete* can be seen from California to New York, in outstanding homes of every architectural style. It wins a warm and lasting welcome in any neighborhood.

Living concrete can give greater breadth to your home designing. Write for free booklet "*Concrete Masonry Homes for Better Living*," distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION Dept. 10-94, 33 West Grand Ave., Chicago 10, Illinois

A national organization to improve and extend the uses of concrete

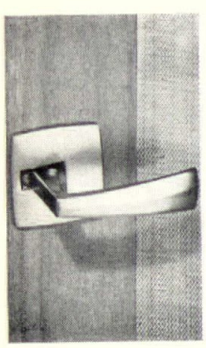
Four modern screen door latches



Fast installation of this new lockset from Yale & Towne is in 1958 trend. Only a single hole, drilled with the aid of a template supplied with the latch, is needed to install the lock. No mortising is needed. Template also assures alignment of latch and strike. Interior handle is lever type (left), exterior knob is conventional shape. Set fits doors ¾″ to 1⅛″ thick, can be locked inside or out with a finger-tip slide lever. Available in aluminum or shiny brass finish.

Yale & Towne, White Plains, NY.

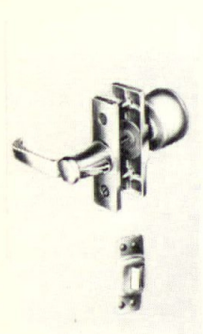
For details, check No. 34 on coupon, p 210



No mortising is needed to install Russwin's new touch-to-open, screen and storm door latch. A 1¾″ hole bored in the door stile takes the latch and handle assembly which is then secured by the inside rose. Latch opens with a slight push or pull but can be locked with a vertical slide button without the danger of lockout. The new latch comes in brass, bronze, and aluminum.

Russell & Erwin, New Britain, Conn.

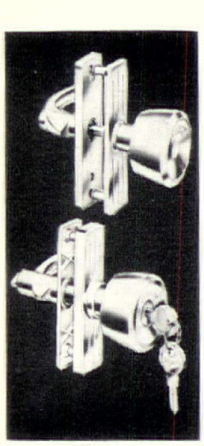
For details, check No. 35 on coupon, p 210



Drill just three holes to install the new E-Z-Set screen and storm latch. Two factory-assembled parts go together simply, can be installed on narrow stiles on any wood or metal ⅞″ to 1¼″ door. Interior handle has a pushbutton lock that cannot be forced but can be released automatically in case of lock-out. New strike holds tighter the more pressure is put against it. Sets come with either round or tulip knobs, in brass or aluminum finish.

National Hardware Corp, Ozone Park, NY.

For details, check No. 36 on coupon, p 210



Two new locksets for wood or aluminum screen, storm, or jalousie doors are being packaged with complete door hardware by Security Storm Lock. Modernaire (top) is a heavy-duty knob latch with an easy spring action and a solid steel shaft. Modernique (bottom) is a key lock. Both are low cost and both are interchangeable with all other Security models. As replacements they can be bought without the other door hardware.

Security Storm Lock & Hdwe, Brooklyn.

For details, check No. 37 on coupon, p 210

continued on p 190



The Traditional in FRUITWOOD

A new design finished in Fruitwood to celebrate more than 100 years of leadership

"I-EXCELL" . . . in American homes for more than 100 years! Over a century of leadership in kitchen cabinetry design and construction proves why I-XL can rightfully claim its name!

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. . . AMERICA'S MOST MAGNIFICENT KITCHEN IN RICH SEASONED HARDWOOD

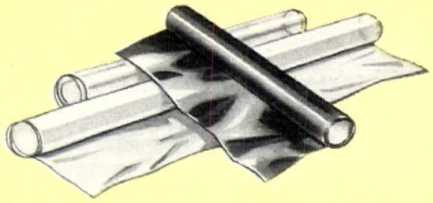
FRUITWOOD! Fashion's newest expression in hardwood kitchen cabinetry . . . stocked in 144 ready-to-arrange coordinated units that give you *immediate* access to infinite one-of-a-kind kitchen combinations. Here is truly the ultimate in custom kitchen luxury . . . rich with the warmth and beauty that natural grain wood alone possesses, characterized by the utility, quality and conveniences that are normally achieved only through costly on-the-job construction. For a fraction of ordinary time and expense, you can pattern any kitchen to any variety of tastes simply by letting the *combination* of prebuilt units provide the I-XL custom touch.

builder or distributor, write immediately to I-XL Sales Dept., 620 N. Michigan, Chicago for further information.

i-XL

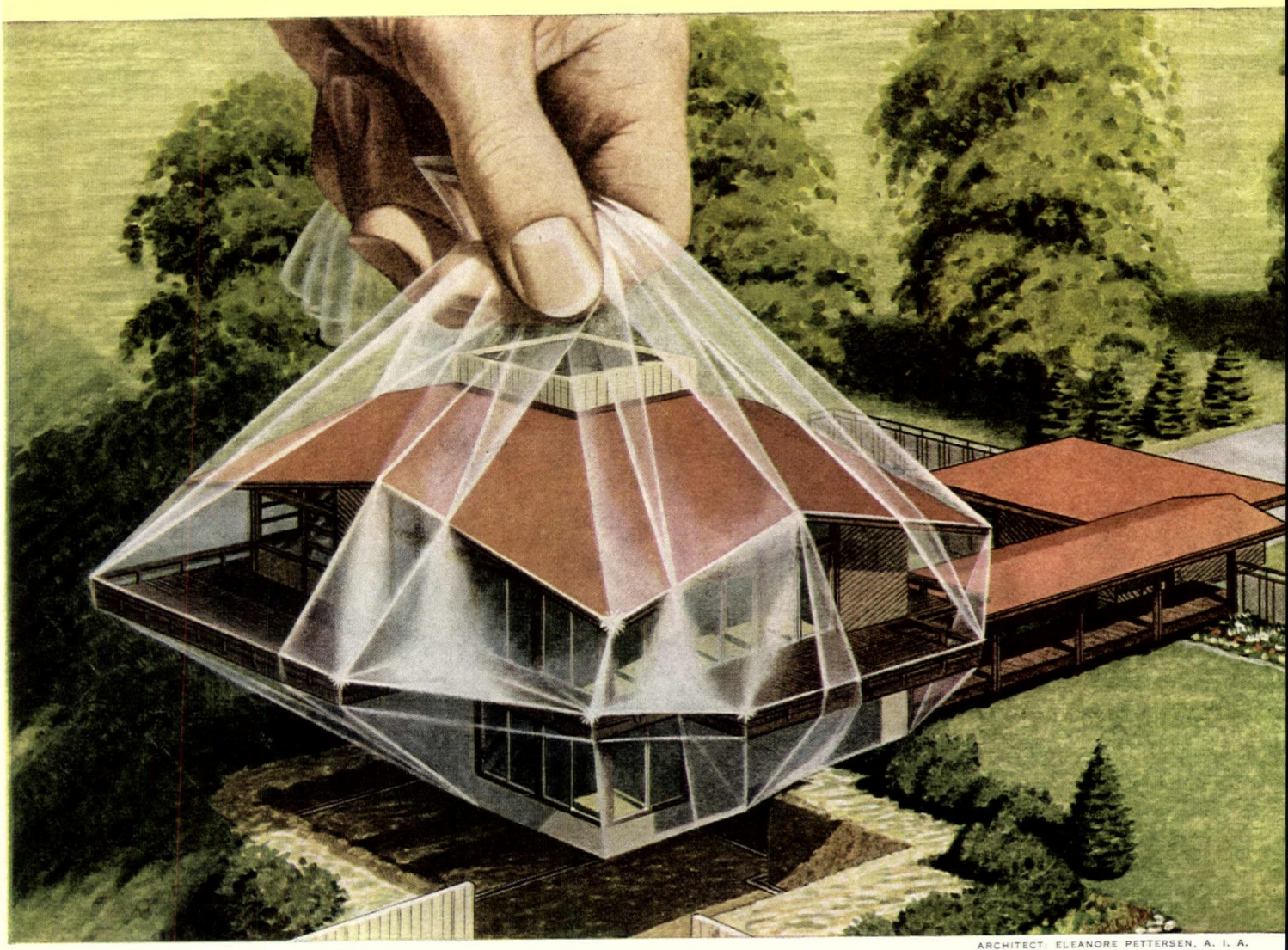
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Factory in Goshen, Indiana



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ARCHITECT: ELEANORE PETTERSEN, A. I. A.

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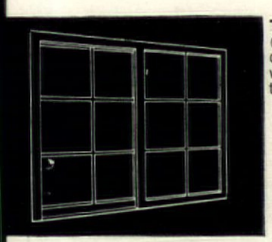
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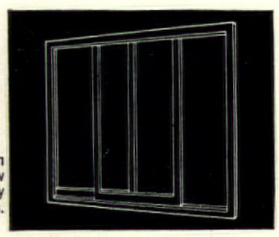
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The Peterson Window Corporation stands squarely behind every Penguin Window and has a code of ethics that assures complete customer satisfaction. For more details, price lists on the Penguin Window, send coupon below.



TRADITIONAL STYLE Penguin (left) has muntin bars within the double glazing, washes like a flat window. Window slides open horizontally and locks firmly in three positions.

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Please send me, free of charge, further information about the new Penguin Window.

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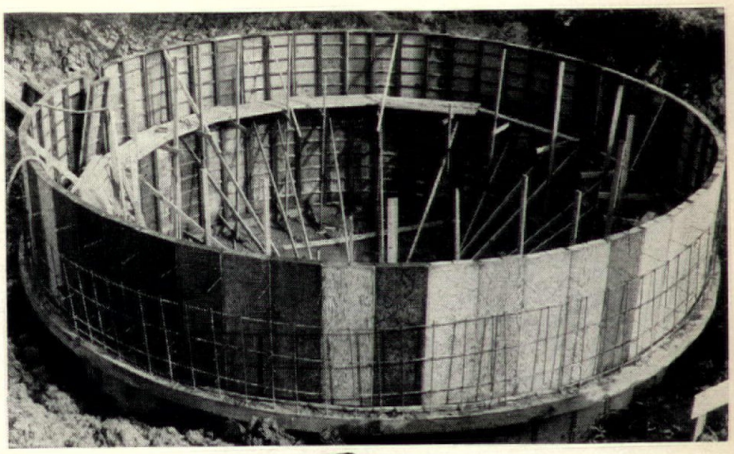
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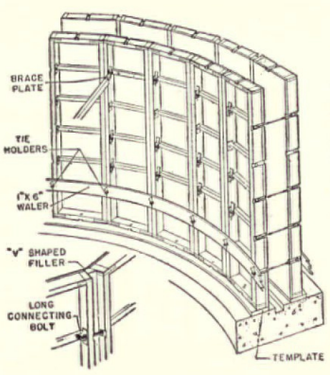
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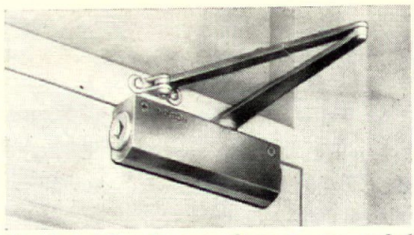
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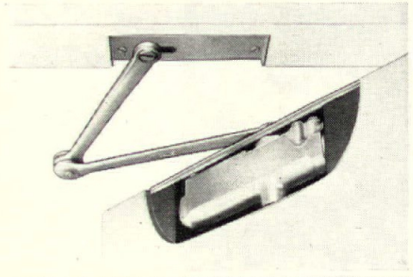
New products

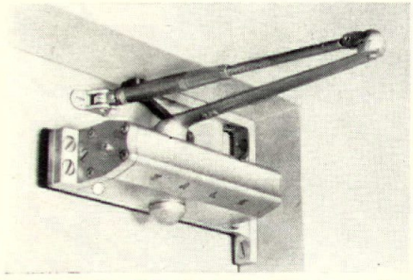


Norton aluminum closers are styled to complement modern design. Construction is spring-loaded, rack and pinion, with full hydraulic damping and lubrication. Control valves for sweep and latch speed are out of sight but easily accessible. Arm arrangements give 90° to 180° opening. Extruded aluminum closers accommodate interior doors to 3′ wide, exterior doors to 3′6″.

Norton Door Closer Co, Berrien Springs, Mich.

For details, check No. 38 on coupon, p 210

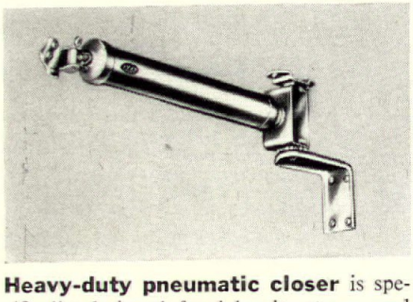




Yale series 80 closers come in models to handle inward opening doors to 3′3″ wide, outward swinging doors to 3′6″, and interior doors to 4′6″, with various arm and bracket arrangements. Both the force and speed with which they act are adjustable. Body is extruded aluminum, arms are forged steel. Concealed closers are not usually recommended for exterior doors. Normally used in 1¾″ doors, they can be used in 1⅜″ doors with special covers.

Yale & Towne, White Plains, NY.

For details, check No. 39 on coupon, p 210



Heavy-duty pneumatic closer is specifically designed for jalousie, storm, and combination doors opening either in or out. Long jamb bracket lets door open 120°; a heavy-duty spring absorbs shock if door is opened wider. Extra heavy plunger rod slides in brass bearing. Air valve regulates speed, cushions closing.

H B Ives Co, New Haven.

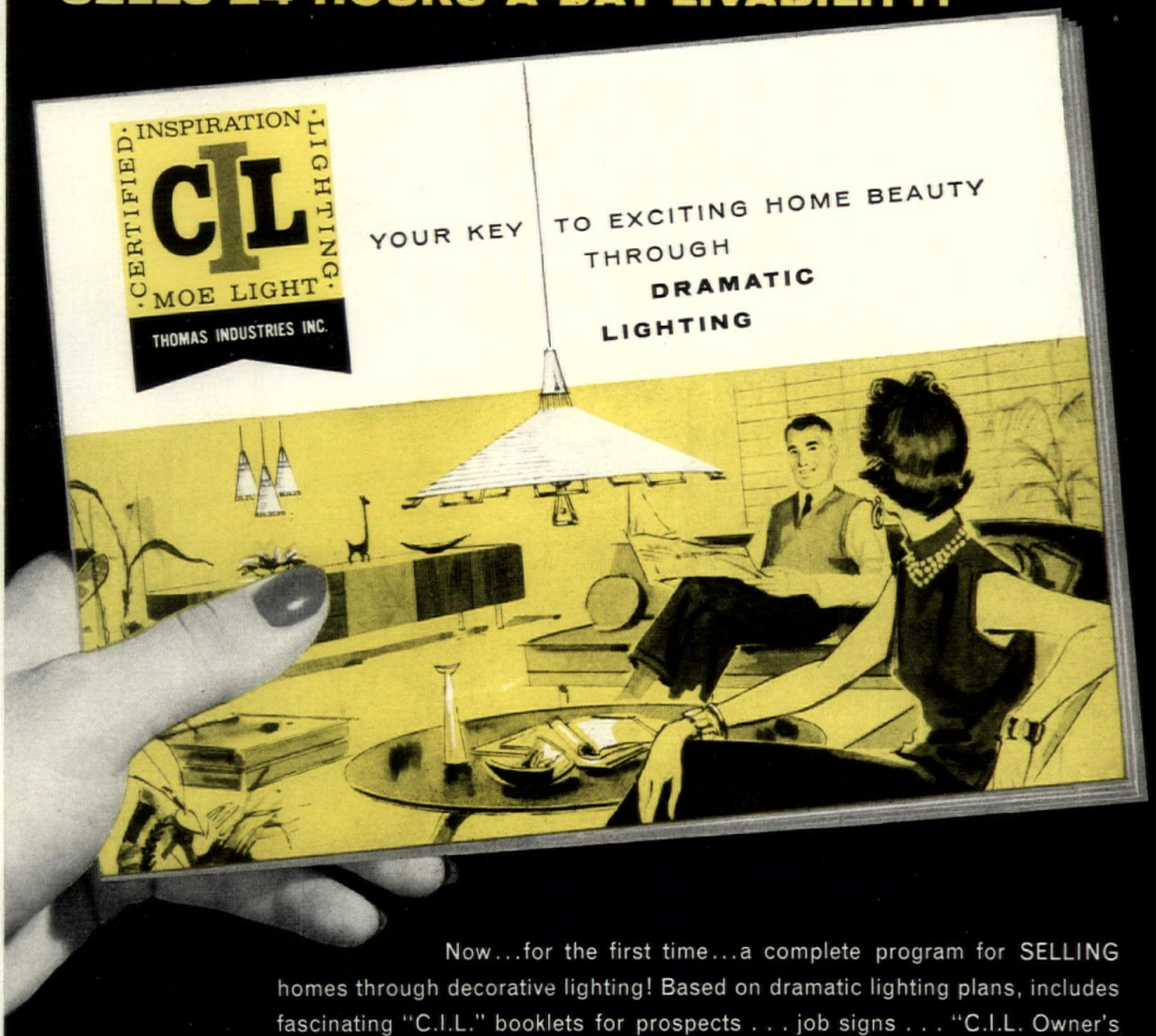
For details, check No. 40 on coupon, p 210

continued on p 194

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Company_____

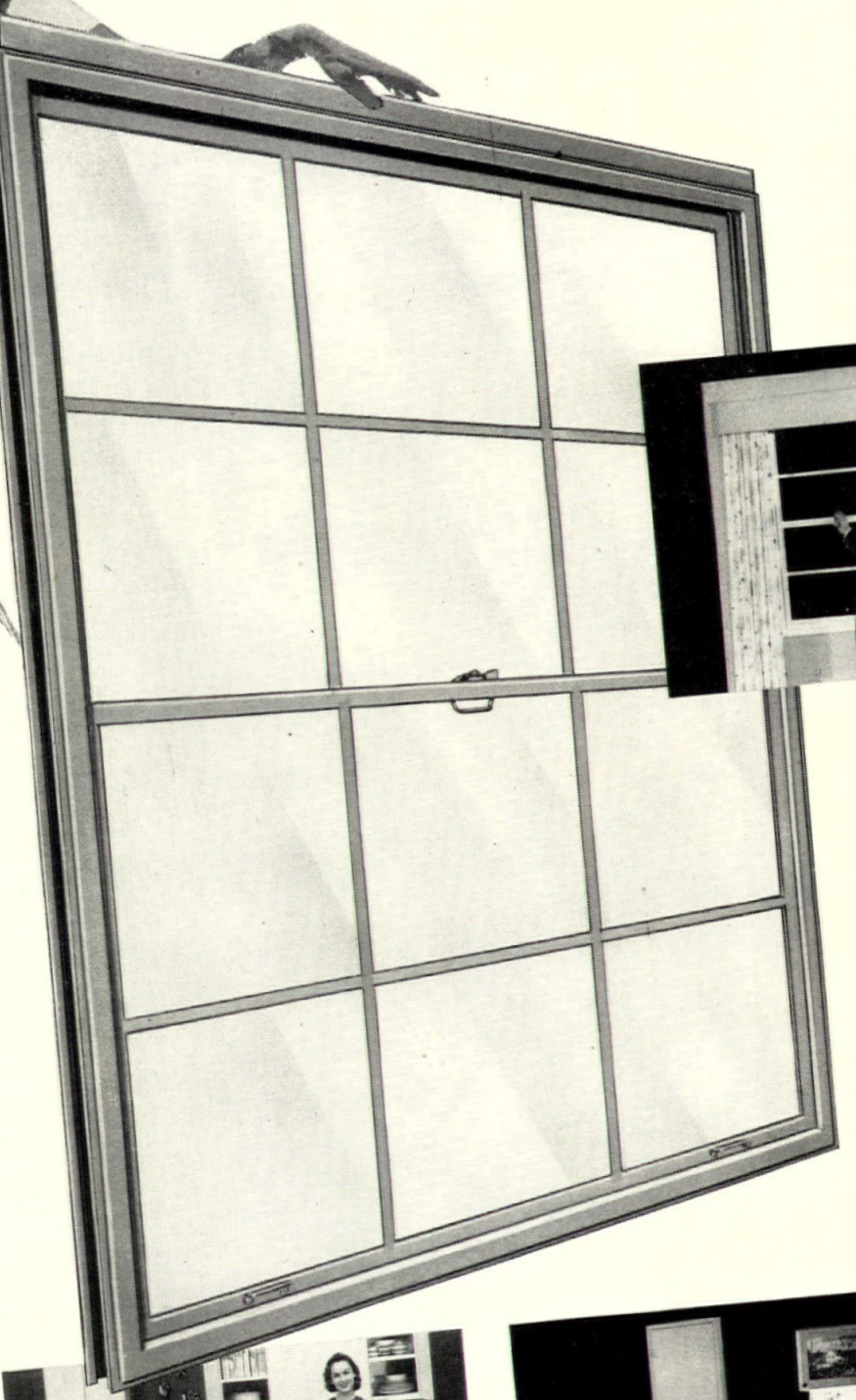
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High Fashion Truscon Interior Steel Doors are delivered with Bonderized protective coating, ready for one-coat, color-matched decorator finishing.

Fashion

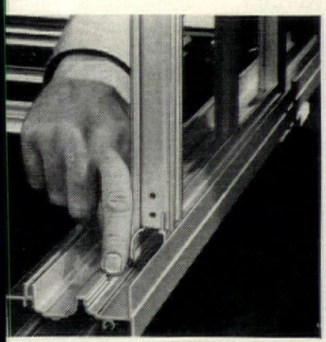
ALUMINUM WINDOWS

WITH BUILT-IN FEATURES THAT WILL ATTRACT HOME BUYERS

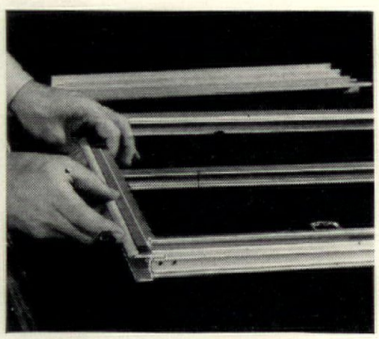
Beautiful, durable Truscon Series 158 Aluminum Double- and Single-Hung Windows set the style for high fashion. Designed and made for quick and simple installation. Heavy extruded aluminum sections provide years of trouble-free service . . . add lasting built-in home values. Series 158 Aluminum Windows are built and backed by Truscon, world's largest producer of steel windows and doors, aluminum windows, and metal building products.

For details, data, immediate delivery, call your Republic-Truscon dealer representative. Or, write direct.

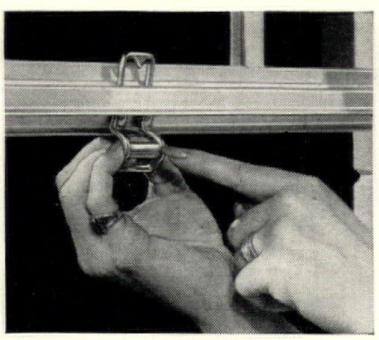
Truscon Series 158 Aluminum Windows are available in both double-hung and single-hung styles. Fit all types of homes everywhere—frame, masonry, veneer, concrete block, stucco.



Frame sections are heavier, stronger, made with more aluminum than most windows. Frame corners are extra strong, extra tight—never stick, warp, rattle, work smoothly, silently.



Weatherstripping is made of wool pile. Seals better, wears longer, provides year around comfort, convenience. Nylon buttons between aluminum jamb sections eliminate annoying rattles.



Hardware is solid bronze, burnished, and lacquered. Finish is etched before lacquering, your assurance that the beauty of Truscon Series 158 Aluminum Windows is lasting beauty . . . lasting service.



"Quality Approved DH-A2", by the Aluminum Window Manufacturers Association, your assurance of quality materials and workmanship that exceed F.H.A. or V.A. home loan specifications.

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World's Widest Range of Standard Steels and Steel Products

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I want to learn more about Republic-Truscon building products:

- ☐ Truscon Series 158 Aluminum Windows
- ☐ Truscon Steel Doors
- ☐ Republic Roof Drainage Products
- ☐ Republic Steel Kitchens

Name_____ Title_____

Firm_____

Address_____

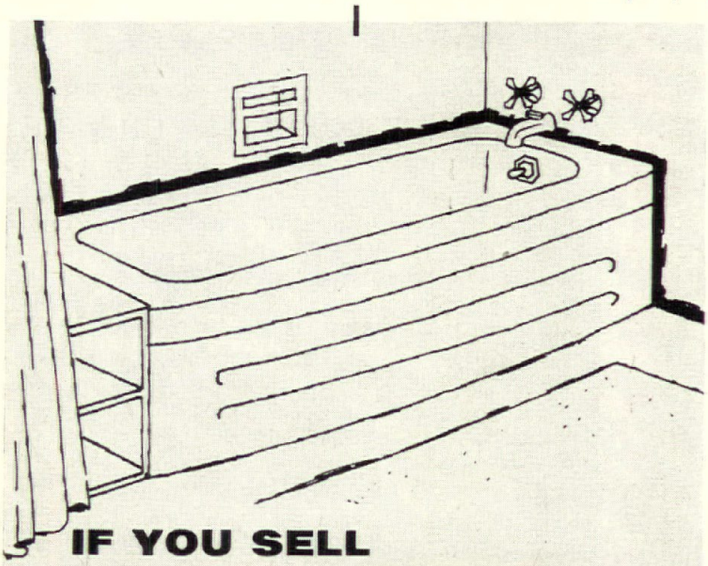
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If you sell only people who want the cheapest, you may sacrifice your profits

If you sell only people who want the fanciest, you may sacrifice your volume





IF YOU SELL

The Mighty Middle

If you sell homes in the most popular price range, you can add to their appeal—*without increasing costs*—with Gerber Plumbing Fixtures.

Gerber specializes in quality fixtures for medium price homes. They are "luxurious", but without unnecessary frills that raise costs; they are inexpensive, but not "cheap" fixtures on which quality is sacrificed for price.

By specializing in fixtures for The Mighty Middle —the biggest home market—Gerber is able to keep prices reasonable and at the same time offer the deluxe features usually found only in fixtures costing much more. Gerber fixtures have smart modern styling and are available in six beautiful colors and white.

Gerber makes a complete line of vitreous china, steel enamelware, and brass plumbing fixtures. Write for folder 9-B of Gerber fixtures and complete "packaged" bathrooms.

SELL

GERBER Plumbing Fixtures

Gerber Plumbing Fixtures Corp., 232 N. Clark St., Chicago 1, Ill.

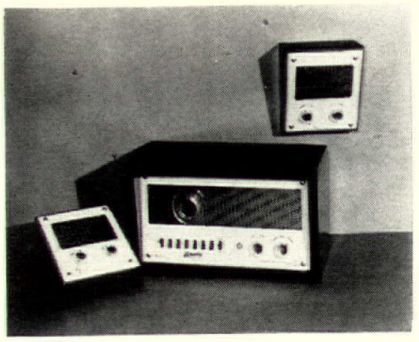
Guaranteed by Good Housekeeping — Replacement or a refund of money if not as advertised therein

Dependable service from leading jobbers, or delivery direct to your job from any of 5 modern plants:

Kokomo, Ind.; Woodbridge, N. J.; Delphi, Ind.; Gadsden, Ala.; West Delphi, Ind.
Export Division: Gerber International Corp., 500 Green St., Woodbridge, N. J.

FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEET'S OR WRITE FOR COPY

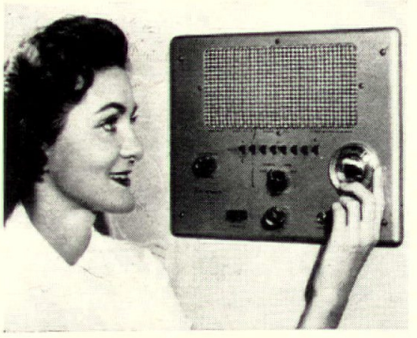
New products



Intercom components include as many remote stations as are needed, master units with AM or AM-FM radios and record player plug-in. The system can be set up for complete two-way communication. Any station can monitor any other station. Each remote station has volume control, off switch, and call switch. Net prices of components: AM master, $74.63; AM-FM master, $99.59; remote stations, $14.29.

Continental Mfg, Omaha.

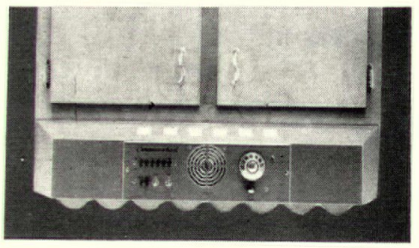
For details, check No. 41 on coupon, p 210



Budget intercom is announced for the home builder market by Rangaire. The new unit includes a seven-station master for two-way communication, radio, individual station volume control, plug-ins for record player or appliances, remote door-answering service. Any station in the system can initiate or receive calls. Guaranteed for one year; list priced at $90.

Roberts Mfg Co, Cleburne, Tex.

For details, check No. 42 on coupon, p 210



Range hood intercom combines a five-outlet communications system and six-tube radio with a kitchen exhaust hood. Hood has squirrel cage blower, Lumline light bulb, patented grease trap, and washable filter. Available in 36″ or 42″ size, in coppertone, white, or colors to match GE or Hotpoint appliances. Intercom gives complete two-way communication; 200′ of wire and speaker brackets come in rough-in kit. Also new: three models of music and intercom system with master and five remote stations, jack for hooking in phonograph or FM radio.

C & H Supply Co, Dallas.

For details, check No. 43 on coupon, p 210

continued on p 199

Copper and the copper alloys have been making building news in recent months. With a reliable supply and a favorable price, builders are taking greater advantage of copper's lower installed cost and its selling advantages. In functional uses, copper's durability makes a great deal of sense to the male home buyer. In decorative uses, its beauty has a strong appeal for his wife.

Here, then, are the five reasons why more builders are using more copper:

1 Materials Savings In water lines and drainage, waste and vent systems, copper's durability makes it possible to use thinner-walled tube with smaller outside diameters – saving both material and space. Normally, fewer fittings are needed because the lightweight copper can be handled easily in lengths up to 20 feet. Because the joints are soldered, the cost of caulking, lead and oakum are eliminated.

A New England plumbing contractor who recently completed a cost study on DWV systems states that a *galvanized* system costs 7½% more, in materials cost alone, than a copper tube system.

2 On-site Savings This same New England contractor found that the copper and brass system also saved him *45%* in installation costs. A Pennsylvania builder reports similar savings. His plumbing contractor says the easy cutting, the simple soldered connections and the long lengths – plus the attitude of his men – are all cost saving factors attainable with copper. Wall construction is simplified, too, because a standard 3" copper tube stack *with fittings* can be installed in the standard 4" partition.

In water lines the copper tube can be fitted into tight spaces and through studdings so that frequently only terminal connections are needed.

3 Prefabrication Savings Because of copper tube's light weight, and the tightness and strength of the soldered joints, many builders are able to gain further savings by standardization of plumbing layouts and prefabrication of plumbing trees, and even complete modular bathrooms.

In one layout for a large development on Long Island, the entire drainage, waste and vent system for 1½ baths, kitchen and laundry in each house was reduced to three assemblies which were fabricated off the site with custom jigs for greater accuracy and efficiency. Only five joints per house had to be made on location.

A plumbing contractor in Ohio prefabricated an entire double plumbing wall, serving kitchen, bath and laundry. All fixtures were planned for above-floor waste pipes. The bathtub was platform-mounted. Toilets were wall hung, and the flush tanks were prefabricated right into the wall. The entire wall was assembled with jigs in a workshop, increasing both the efficiency and the working comfort of his men. A journeyman went to the site only once during the construction of each house, to hang and connect the fixtures and connect the wall to the outside lines. Eliminated – one major scheduling problem. Saved – about $100 per house.

And now planning is underway to develop 32" wall modules for bathrooms, using panelized walls with pre-assembled copper plumbing, and component fixtures.

4 Sales Features—Functional Even more than big-name appliances, copper plumbing, flashing, gutters and downspouts give a buyer confidence in a house. He sees copper as *built-in,* not just added, quality. He knows corrosion-resistant copper means quick hot water. He may even know that the soldered joints in DWV systems test as strong as the tube itself. If not, you'll want to be sure and tell him. You might also point out that brass hardware is strong and durable as well as attractive.

5 Sales Features—Decorative When a roof is the dramatic focus of a house, you have two reasons for using copper sheet: appearance and durability. And, of course, there are other areas where copper, brass or bronze sheet can be used in smaller amounts to give an appearance of luxury as well as an assurance of service – range hoods, screen doors, splash walls in the kitchen and bath, kitchen cabinetry – even built-in appliances.

In the model house, it's a smart move to carry out your "Quality with Copper" theme by using copper cookware and copper or brass lighting fixtures, lamps and ornaments. Copper, brass and bronze sell . . . let them sell for you.

For further information on the many uses of the copper metals in home building, write the Copper & Brass Research Association, 420 Lexington Avenue, New York 17, N. Y.

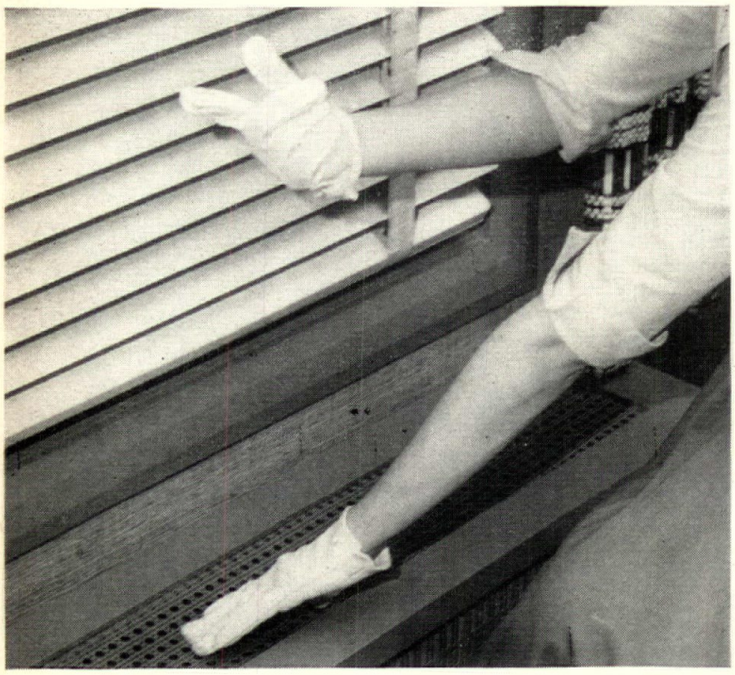
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Advertisement

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LP-GAS heat is "white glove clean"

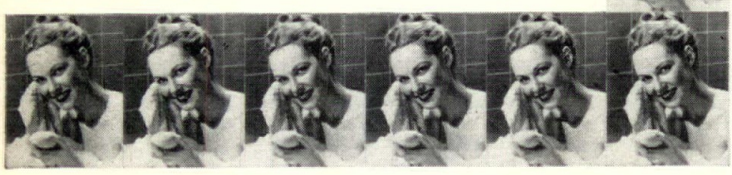


One of the chief reasons that 7 out of 10 new homes are gas equipped is the unique cleanliness of gas. Builders know it, and have met the demand with modern LP-Gas units in areas beyond the gas mains. Unlike solid or liquid fuels, LP-Gas burns *completely*, never leaving residue that fouls the heating system and drifts through the home. Walls and woodwork stay cleaner. Rugs and fabrics stay brighter. LP-Gas is safe, too. In both central systems and space heating units, the latest automatic controls shut the gas off at *once* if the pilot light should ever go out. For cleanliness and safety, LP-Gas is the leading choice by far.

New water heater delivers 8 baths per hour!



New "super speed" LP-Gas water heaters will recover hot water faster than ever. They are now available in 4 sizes up to 50 gallons. Designed for larger residential and commercial applications, the 50 gallon tank delivers 120 gallons of 160° water per hour. Enough for eight steaming baths! Whatever the size or brand, *gas* water heaters recover up to 3 times faster than other types.



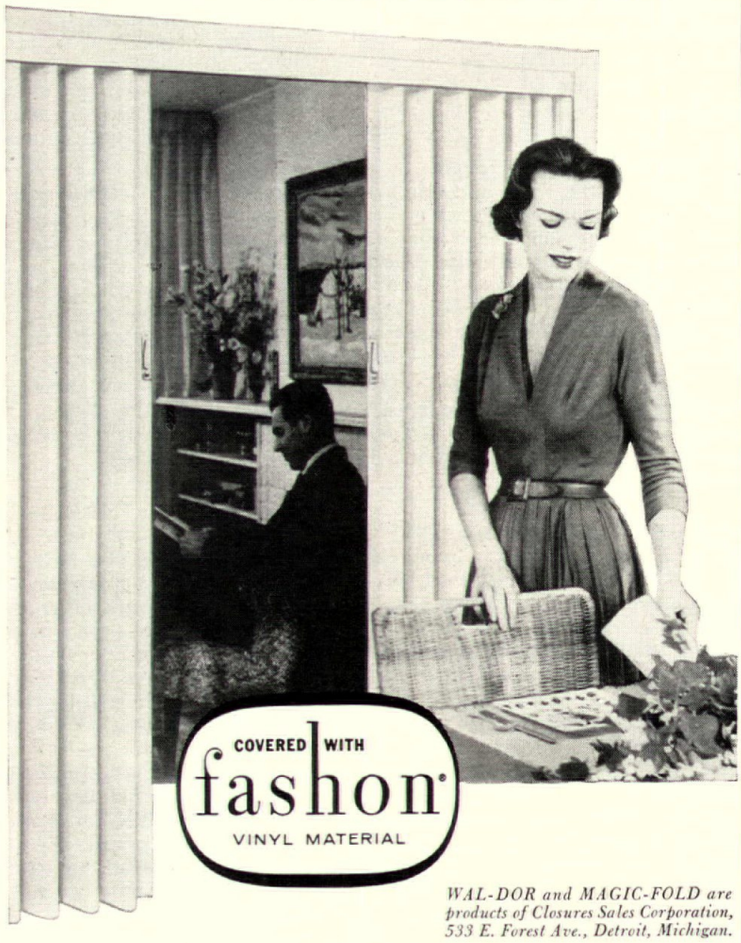
Important facts about LP-Gas. LP-Gas stands for Liquefied Petroleum Gas, a natural fuel kept in liquid state, then burned as gas or vapor. It is also known as Butane, Propane, Bottled Gas or Bulk Gas. LP-Gas is best known for its ease of control, uniform combustion and unusual cleanliness. With their fuel right on the premises, LP-Gas users are not affected by power failures, overloads and other supply problems. LP-Gas is chiefly used for automatic heating, cooking, water heating, clothes drying, refrigeration, incineration and air-conditioning.

MEMBER NATIONAL LP GAS COUNCIL

FREE BOOKLET: Write for 24 page booklet explaining the many uses of LP-Gas in modern homes. Write to Dept. HH-4, National LP-Gas Council, 185 N. Wabash Ave., Chicago, Illinois.

save space beautifully with WAL-DOR *and* MAGIC-FOLD

FOLDING DOORS



WAL-DOR and MAGIC-FOLD are products of Closures Sales Corporation, 533 E. Forest Ave., Detroit, Michigan.

EASY TO INSTALL... LOW COST

GENERAL VINYL . . . for folding doors and room dividers...comes in a wide selection of smart, new decorator colors...in patterns and leather effects that add real sales appeal to any style home. This especially formulated vinyl flexes and folds for years without cracking or tearing . . . easily cleaned with a soapy cloth.

Give your homes the extra sales appeal of folding doors and room dividers made with quality GENERAL VINYL —send coupon today!

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Please send me complete information on Closures WAL-DOR and MAGIC-FOLD folding doors.

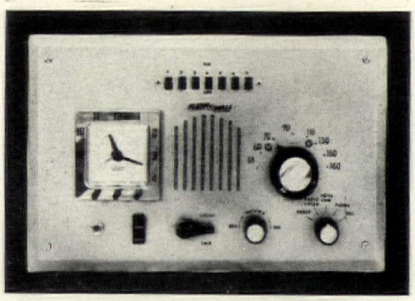
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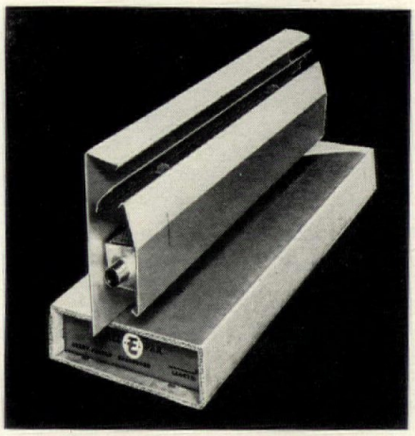
New products



This 7-outlet intercom provides a sound system for the whole house. Master unit includes an AM radio that can play through all seven speakers, a phono jack to tie in recorded music, and a Telechron clock that can be preset to turn system on or off. Intercom gives two-way communication between master and any outlet.

Flush Wall Radio Co, Clearwater, Fla.

For details, check No. 44 on coupon, p 210



"Low-line" baseboard heater is only 7" high, 2 7/16" deep, fits neatly under window walls. Aluminum finned copper tubes give off 435 to 615 Btu per ft at 170F to 210F water temperatures. Snap-fit covers and accessories make 8-room installation possible in one day, maker claims. Bend in back plate covers gap between floor and wall, eliminates need for base molding. Price to trade: $2.15 per ft. Price in carton lots is slightly less.

Patco Mfg Co, Philadelphia

For details, check No. 45 on coupon, p 210



Prefabbed baseboard heater comes 2′ to 8′ in length, completely assembled with front and back panels, element, damper, and hanger brackets. Unit puts out 440 to 760 Btu per hr per ft with hot water from 160F to 210F. Each section nails in place, is prefitted to take a double element tier if needed. Price in Red-E-Pak, $2.20 per ft. Price in bulk is slightly less.

Embassy Steel Products, Brooklyn.

For details, check No. 46 on coupon, p 210
continued on p 200

YOU DON'T NEED CAT'S EYES...TO SEE IT IN THE DARK.

LEV-O-LITE®
ILLUMINATED HANDLE
silent mercury switch



No more fumbling in the dark . . . no more dirty walls from "switch-groping." Instead, a tiny, built-into-the-handle neon lamp that always remains bright, lasts a lifetime, and costs but a few cents a year to operate! This switch is sturdy, easy-to-install, with no moving parts to wear out, no springs to snap. Ideal wherever silence is essential . . . now popularly priced for every installation.

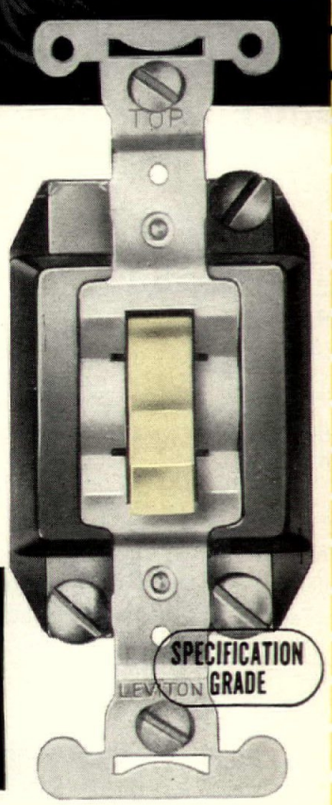
And . . . it's just one of the many fine, economical devices made available to everyone through the superior skills and complete resources of LEVITON!

For the complete story, write today on your letterhead.

All silent switches listed by U. L. and C. S. A.



LEVITON SILENT MERCURY SWITCH: Fully enclosed, rated 10A.-125V.T., 5A.-250V. Ivory toggle, with illumination. Single Pole No. 5561 or Three Way No. 5563



Available boxed or carded. Specify "K" when ordering on card.

Your best jobs are done with . . .

LEVITON MANUFACTURING CO., INC., BROOKLYN 22, N. Y.

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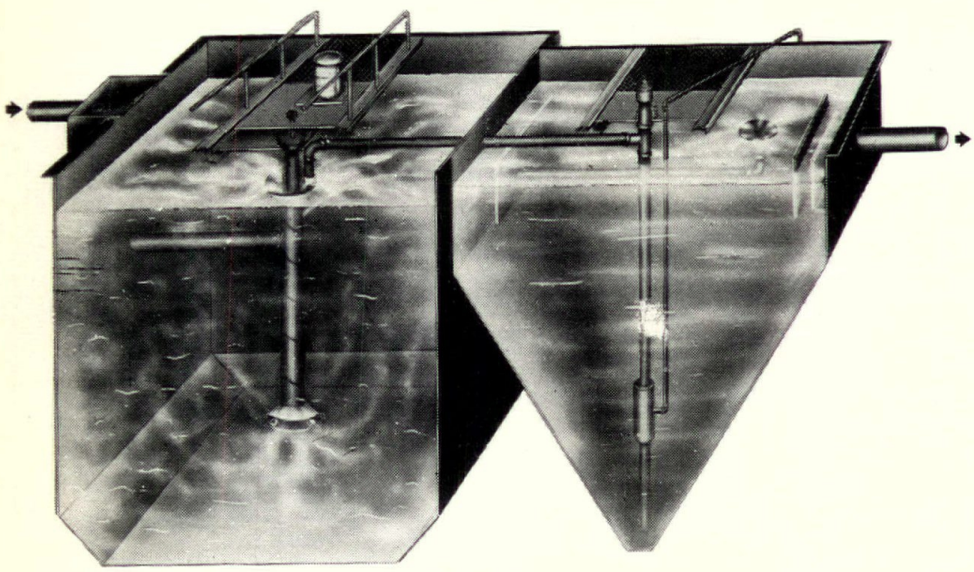
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For your wire needs, contact our subsidiary AMERICAN INSULATED WIRE CORPORATION

YEOMANS

PREFABRICATED SEWAGE TREATMENT PLANTS





shipped as a complete plant ...ready to place in your excavation!

ECONOMICAL SEWAGE TREATMENT FOR:

Schools
Hospitals
Subdivisions
Drive-in Theatres
Motels
Resorts
Restaurants
Trailer Courts
Factories

Make a simple excavation . . . pour a concrete slab. That's all you need do to install this complete treatment plant. And, because these Yeomans plants are standardized, your sewage treatment dollar goes farther. Fast delivery and quick start-up of the plants keep construction schedules flexible, too.

Yeomans "package" plants are built around the well-known Cavitator® which treats sewage by the high-efficiency Aerobic Digestion process. The effluent (discharge) is odorless and clear. There are no blowers, compressors, nozzles, or diffusion tubes to be maintained. Standard systems are supplied in capacities from 2000 to 7500 gallons per day. A factory-trained engineer is available to supervise installation, train operators, and test performance.

Your investment is safe in a Yeomans sewage treatment plant. Each one incorporates 60 years' experience in handling sewage. Each is fully approved by health and building authorities. Why not write for details now.

T-5802

Send for Bulletin No. 101 on Prefabricated Sewage Treatment Plants

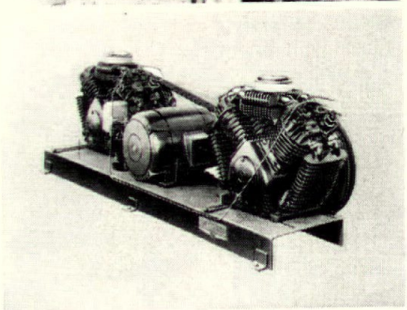
YEOMANS PUMPS YEOMAN SERVICE

2003-8 North Ruby Street • Melrose Park, Illinois

YOUR MOST COMPLETE LINE OF SEWAGE TREATMENT EQUIPMENT

New products

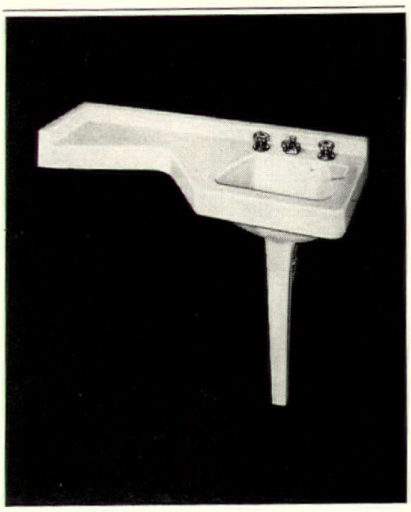




New sprays from DeVilbiss include a remote cup outfit for small spray jobs. Cup holds two quarts, is readily portable from job to job. Remote unit can be used with any type or make of gun. Fluid regulator assures non-varying operation. DeVilbiss also has announced big new 20 and 25 hp compressors to deliver 125 to 175 lb pressure. V-type multi-cylinder compressors will displace 96 to 129 cu ft of air per minute. Unit is 88" x 28⅜" x 28", weighs about 1500 lbs.

DeVilbiss Co, Toledo.

For details, check No. 47 on coupon, p 210



Ledgend lavatory from Kohler, designed for hotel and restaurant use, is well adapted to home powder rooms. Flat design leaves room for a large mirror, wide ledge will serve for guest's purse or cosmetics. All-brass fittings have small knobs and automatic back-off under excessive torque to reduce pressure on valve seats, save frequent replacement. New set screw adjustments replace lock nuts at ledge, make assembly safe and easy./END

Kohler, Kohler, Wis.

For details, check No. 48 on coupon, p 210

Publications

Stone, as used today

A new 48-page brochure, "Stone—a comprehensive review of its uses in contemporary architecture," begins with a 10-page history of stone in architecture then follows with 36 pages of examples of how stone is being used today. The examples include large and small commercial buildings, churches, hospitals, schools, banks, public buildings, etc, as well as several examples of residential buildings and details.

Chicago Cut Stone Contractors Assn.

For copy, check No. 49 on coupon, p 210

How to top a counter

Small Homes Council's latest publication rounds up the basic information on various types of countertopping. Included are descriptions of the materials, their strengths and weaknesses, and how to apply them. The materials: inlaid linoleum, marble, laminated and vinyl plastics, stainless steel, ceramic tile, tempered hardboard, and laminated hardwood. 15¢.

Small Homes Council, University of Illinois, Urbana, Ill.

For copy, write direct to SHC.

"This is the window"

Here's an envelope stuffer aimed at educating your buyers to modern window types. It shows all the types of Ualco aluminum windows and points out what each does best.

Southern Sash, Sheffield, Ala.

For copy, check No. 50 on coupon, p 210

All-brass plumbing fittings

Kohler's new 26-page catalog covers the fittings in the new Galaxy and Constellation lines for tubs, showers, and lavatories, as well as other brass fittings for water closets and for kitchen, laundry, and service sinks.

Kohler, Kohler, Wis.

For copy, check No. 51 on coupon, p 210

Guide to metal lath

All the products needed in a metal-lath system are described in Ceco's new 12-page booklet. Covered are various mesh and rib laths, corner lath and beads, arches, rolled channels, studs, channels, runners, rod, wire, and nails.

Ceco Steel Products, Chicago.

For copy, check No. 52 on coupon, p 210

What to do about lawns

Latest release from the Better Lawn & Turf Institute is a 16-page pamphlet on quality turf grasses. The pamphlet describes various lawn grasses and tells how to choose and cultivate the right ones for the area in which you build.

Better Lawn & Turf Institute, Kansas City, Mo.

For copy, check No. 53 on coupon, p 210

Data on prefinished paneling

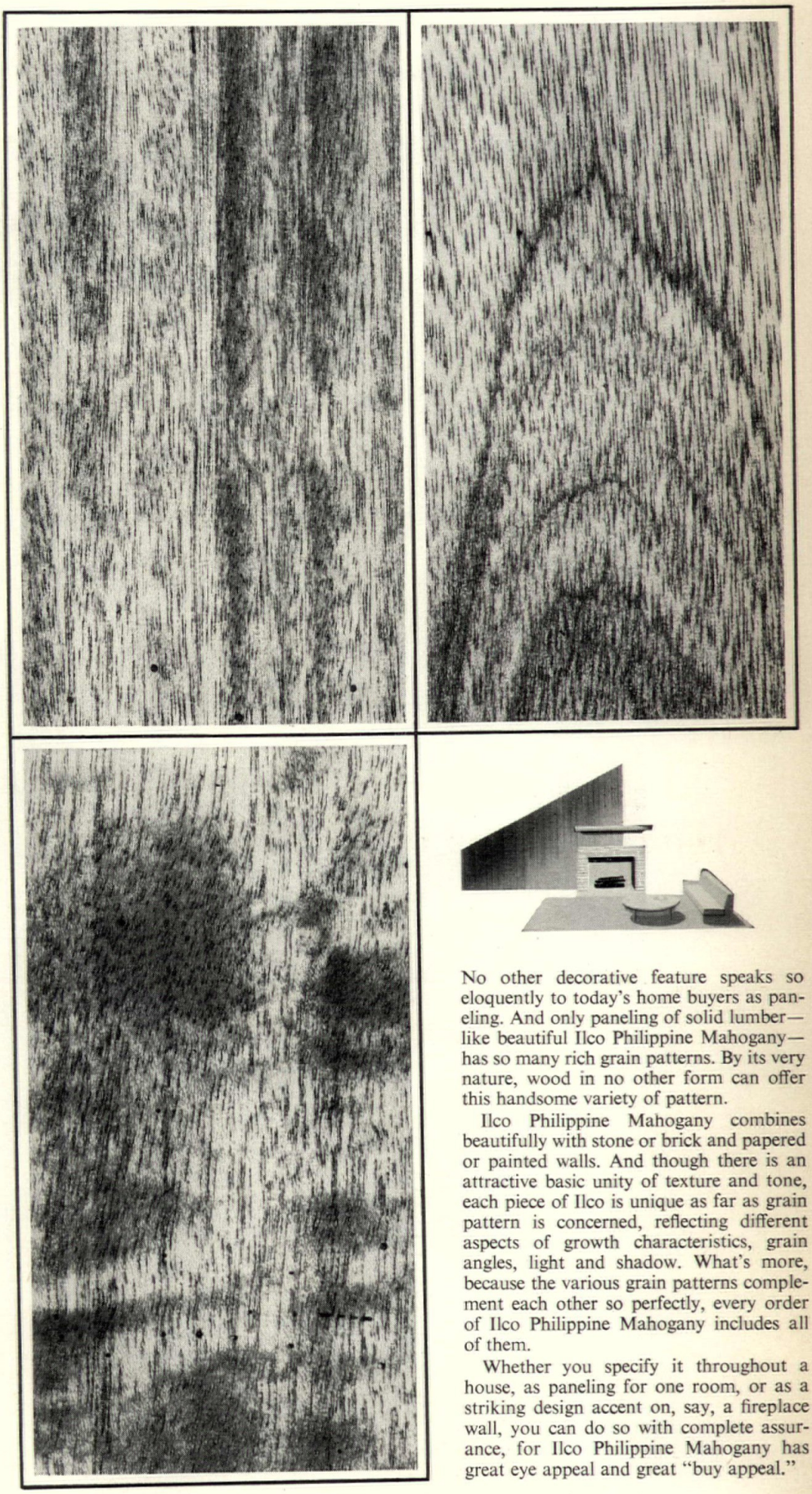
Masterwall's new folder gives architects, builders, and consumers basic information for specifying the nine different kinds of paneling offered in the company's resin-finished line.

Aetna Plywood & Veneer, Chicago.

For copy, check No. 54 on coupon, p 210

continued on p 204

Only solid lumber like ILCO Philippine Mahogany has so many rich grain patterns



No other decorative feature speaks so eloquently to today's home buyers as paneling. And only paneling of solid lumber—like beautiful Ilco Philippine Mahogany—has so many rich grain patterns. By its very nature, wood in no other form can offer this handsome variety of pattern.

Ilco Philippine Mahogany combines beautifully with stone or brick and papered or painted walls. And though there is an attractive basic unity of texture and tone, each piece of Ilco is unique as far as grain pattern is concerned, reflecting different aspects of growth characteristics, grain angles, light and shadow. What's more, because the various grain patterns complement each other so perfectly, every order of Ilco Philippine Mahogany includes all of them.

Whether you specify it throughout a house, as paneling for one room, or as a striking design accent on, say, a fireplace wall, you can do so with complete assurance, for Ilco Philippine Mahogany has great eye appeal and great "buy appeal."

PANELING • SIDING • MOLDINGS • FLOORING • TRIM • ROUGH AND SURFACED LUMBER
ALL SOLID LUMBER—NOT PLYWOOD OR VENEER

INSULAR LUMBER SALES CORPORATION

1405 Locust Street, Philadelphia 2, Pa.

Selling Homes is

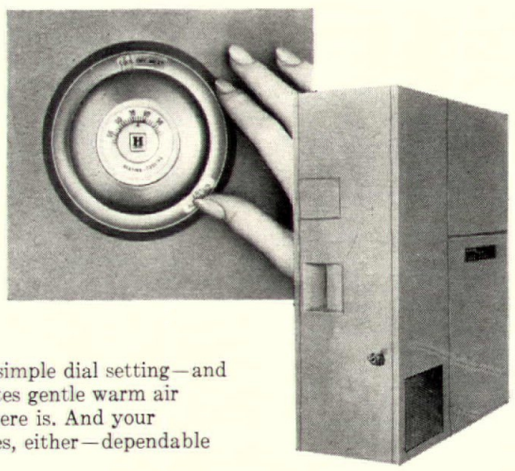
the Gas furnace cools



ARKLA-SERVEL SUN VALLEY*

All Year® Gas Air-Conditioner

now at new low cost for Builder and Buyer, too!



SHOW THEM how wonderful a Gas furnace can be! A simple dial setting—and presto—the compact Arkla-Servel Sun Valley* circulates gentle warm air to every room in the house. Gas is the cleanest fuel there is. And your prospects never have to worry about late fuel deliveries, either—dependable Gas is piped right into their homes.

ONLY GAS

*Trademark. Product of Arkla Air Conditioning Corp., Evansville, Ind., & Shreveport, La.

much easier when...

in summer, too!

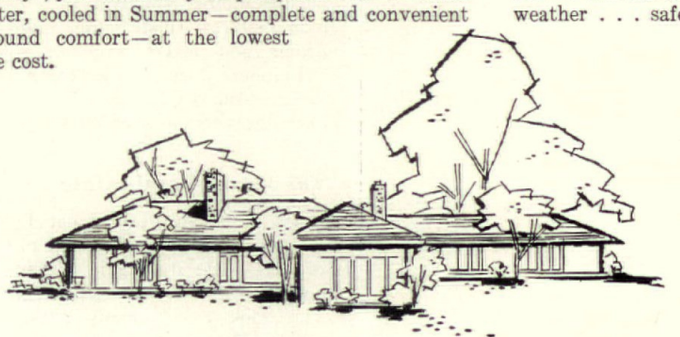
DESIGNED BY ARCHITECT GEORGE NEMENY, A.I.A.



SHOW THEM the most effective way to beat any heat spell. No more spot-cooling a couple of rooms . . . no more drafty fans. The Arkla-Servel Sun Valley* cools every room in the house from a single compact unit. With the Sun Valley*, you can offer your prospects a home heated in Winter, cooled in Summer—complete and convenient year-'round comfort—at the lowest possible cost.

SHOW THEM how a single and simple thermostat looks after them night and day. They merely set the thermostat to a desired temperature, and the Sun Valley* maintains that degree of heat or cooling with dehumidified air around the clock. They're safe from all kinds of weather . . . safe from maintenance difficulties, too—protected by Arkla's five-year performance warranty. Available in two sizes: Model 500, three-and-a-half tons, Model 750, five tons.

AMERICAN GAS ASSOCIATION



does so much more...for so much less!



with any other type of vapor seal on the market!

ONLY *PM OFFERS ALL OF THE FEATURES NECESSARY TO PROVIDE A TRUE, IMPERMEABLE VAPOR SEAL AGAINST MOISTURE MIGRATION.



COMPARE the strength . . . "PM" maintains its permeance rating even after being subjected to the pouring of aggregate, trundling of wheelbarrows and installation foot traffic. Resists rupturing and tearing. How many other materials will perform like this? COMPARE the ease and speed of providing a permanent installation . . . "PM" may be laid directly over the tamped grade or fill. Ideal for all types of construction; basement, crawl-space and slab-on-grade.

We sincerely advise and invite your comparison of "PM" against all other "so called" vapor barrier products on the market . . . before you specify or install your next vapor seal be sure it meets these Sealtight standards of quality: permeance rating of only .0066 . . . resistant to rot, mold and termites . . . strong enough to resist puncturing . . . expandable . . . quickly, easily installed . . . only "PREMOULDED MEMBRANE" meets them all. "PM" is actually the most economical vapor seal on the market when you consider the reduced maintenance and redecorating costs realized through the complete elimination of moisture migration into the structure. COMPARE the permeance ratings . . . as you can see by the chart below, "PREMOULDED MEMBRANE" is over 16 times more impermeable than the next ranking material.

MATERIAL	WATER VAPOR TRANSMISSION (in *perms)
"PREMOULDED MEMBRANE"	.0066
Polyethylene Film (.004 in. thick)	.097
55 pound roll roofing	.030
Duplex paper (coated both sides reflectors material, reinforced)	.304

*PERMS—grains per square foot per hour per inch of mercury difference in vapor pressure at standard test conditions.

SEALTIGHT®

PRODUCTS

- "PREMOULDED MEMBRANE" Vapor Seal
- "HYDROMAT" Asphalt Liners
- "DURAJOINT" PVC Waterstops
- "CORKTITE" Perimeter Insulation
- PAVING PRODUCTS: Expansion Joints, Center Strip, Hot and Cold Rubber Asphalt Seal, Hot and Cold JFR Joint Seal, Curing Compounds and many others.

*Premoulded Membrane TRADEMARK ...the industry's only TRUE, impermeable vapor seal.

WRITE TODAY for complete information . . . request the "PM" Design Manual and series of "Tech-Tips."

W. R. MEADOWS, INC.

10 KIMBALL ST. • ELGIN, ILLINOIS

Publications

How to choose wall plugs

New wall charts from Arrow-Hart diagram approved and standardized receptacle openings and blade patterns for 28 polarized, nonpolarized, and grounded devices for two-, three-, and four-wire installations, include amperage and voltage ratings and Arrow-Hart catalog numbers. Devices shown range from 15 amp, 115v to 50 amp, 600v. Catalog size chart is 8½" x 11".

Arrow-Hart & Hegeman, Hartford.

For copy, check No. 55 on coupon, p 210

How to use shop tools

The new edition of Robert E Smith's *Machine Woodworking*, last published in 1948, brings up to date instructions in the use of radial saw, portable router, portable sander, portable electric drill, and portable electric saw. The information is given in straightforward how-to-do-it fashion for the shop workman and is fully and clearly illustrated. Logical job organization and safe practices are stressed. 202 pages. $3.60.

McKnight & McKnight, Bloomington, Ill.

For copy, write direct to publisher.

How to use plastic drainage pipe

Chem-Weld's folder tells the advantages of plastic drainage pipe, how it goes together, how to join it to other types of pipe. Full line of fittings is shown.

Southwestern Plastic Pipe Co, Mineral Wells, Tex.

For copy, check No. 56 on coupon, p 210

How to stop mortar cracking

Major cause of leaky masonry is separation cracks between brick and mortar. "The design and specification of watertight masonry" tells six steps to avoiding such cracks, including the use of Omicron Mortarproofing, developed by the manufacturer.

Master Builders Co, Cleveland.

For copy, check No. 57 on coupon, p 210

New LuReCo licensing

Details of LuReCo's new licensing agreement, developed during the May directors meeting of the Lumber Dealers Research Council, and a recent FHA Engineering Bulletin are included in folder just published by the Council. The new agreement licenses lumber dealers in three categories: manufacturer - distributor, manufacturer-dealer, and dealer.

Lumber Dealers Research Council, Washington, DC.

For copy, check No. 58 on coupon, p 210

The story of real estate

NAREB historian Pearl Janet Davies tells the story of the growth and organization of real estate trading in a new 228-page book, *Real Estate in American History*. The book details many phases of land use, public policy, and law. It deals with the start and growth of the zoning movement, the development of state property laws, the exposure of fraud in early real estate sales. Introduction by Miles L Colean. $5.

NAREB, Chicago.

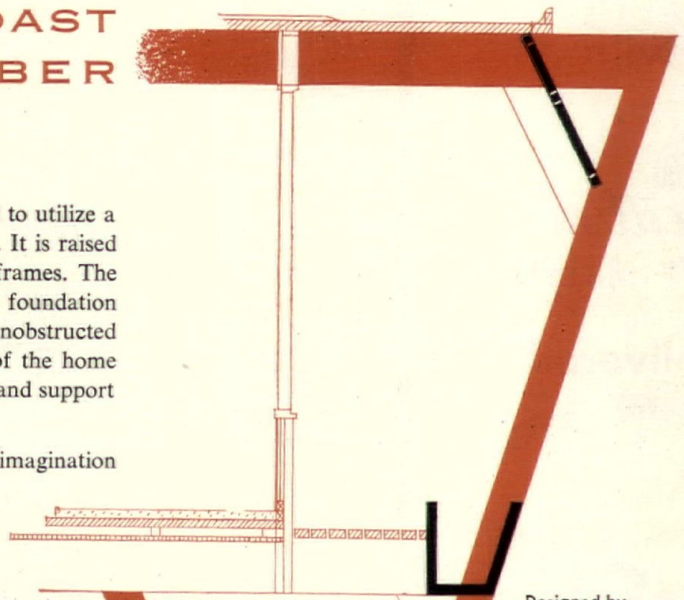
For copy, write direct to association.

continued on p 206

MODERN DESIGN USES WEST COAST LUMBER

Highly functional, this modern home was designed to utilize a steep hillside for maximum view at minimum cost. It is raised above the slope and supported by 11 rigid bent frames. The home's design eliminated grading, retaining wall foundation and drainage expenses . . . yet allows a completely unobstructed view to the west. The frames form the skeleton of the home while frame extensions, exposed, become the posts and support members. Frames were fabricated on the job.

When you build with wood your only limit is the imagination of the designer. Function, interest, economy and adaptability are just a few of the plus factors in lumber construction. For dependable lumber, use the West Coast species.



Designed by
Noris M. Gaddis, A.I.A.
Oakland, California



WEST COAST LUMBER

Douglas Fir
West Coast Hemlock
Western Red Cedar
Sitka Spruce

West Coast Lumbermen's Association
1410 S. W. Morrison Street
Portland 5, Oregon

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with

Crestline® MILLWORK

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Pay as much as 25% less. When you sell, you can sell for less. Yet your profits are greater with Crestline Millwork—a top quality line of Ponderosa pine windows and doors. Fast mill-to-dealer delivery lowers your cost. Crestline Millwork is made and sold to help you beat your competition! Get more information today!

Write the **SILCREST COMPANY**

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Western Ponderosa Pine • Union Label

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Bifold Door Units

Removable Slideby Window Units

Stacking Awning Window Units

Casement Window Units

Weatherstripped Door Frames, Combination Self-Storing Storms & Screens (with aluminum frame inserts), Louvered Doors & Shutters, Combination Aluminum Doors, Panel & Sash Doors, and other allied products.

Publications

A warning about urban renewal

Publication AB-2-58 of the Housing & Home Finance Agency warns property owners against improving property that may be subject to urban renewal. It also instructs public agencies in what to do to avert unnecessary expense by property owners.

Housing & Home Finance Agency, Washington, DC.

For copy, check No. 59 on coupon, p 210

. . . and a digest of planning laws

Also from HHFA; "Planning Laws," a digest of state laws on city, county, region, and state planning up to December, 1957. This updates the study issued in 1951.

Housing & Home Finance Agency, Washington, DC.

For copy, check No. 60 on coupon, p 210

"How to install Vina-Lux"

This new folder from Azrock gives step by step instructions for installing vinyl floor tile over wood or concrete floors. Lists tools, materials, tells how to estimate tile needs.

Azrock Products, Uvalde Rock Asphalt Co, San Antonio.

For copy, check No. 61 on coupon, p 210

Data on textured wood walls

Four Weldwood textured panels are described in a new 8-page US Plywood brochure. The woods: Surfwood and Sea Swirl, in which the natural grain gives the texture; Weldtex and Planktex, which are striated. Booklet also gives finishing and installation details.

US Plywood, New York City.

For copy, check No. 62 on coupon, p 210

To move a lot of earth . . .

International Harvester in a new 16-page booklet describes the TD-14 crawler combined with a Drott 4-in-1 Skid Shovel. The combination can be used as a dozer, bullclam, skid-shovel, or clamshell, or the tractor can be used with other specialized Drott attachments.

International Harvester, Chicago.

For copy, check No. 63 on coupon, p 210

Catalog of intercom units

Masco's 32-page catalog shows a wide variety of single, dual, and multi-outlet systems for home and office use. Featured is the Wife-Saver model with seven remote stations and a master station, an AM radio, and an electric timer. Also included intercoms for the hard of hearing and the sick, for door answering, for electronic baby sitting.

Mark Simpson Mfg Co, Long Island City, NY.

For copy, check No. 64 on coupon, p 210

Plans for LuReCo kitchens

Caloric Appliances and the Lumber Dealers Research Council have cooperated on a 16-page collection of plans that fit the appliance manufacturer's equipment to LuReCo houses. 15¢ a single copy, 12¢ a copy in lots of 50 or more.

Caloric Appliance Corp, Topton, Pa.

For showing, write direct to manufacturer.

continued on p 208

REVCO

Bilt-In Refrigeration



Architect: Don Erickson, Des Plaines, Illinois

Leader by far in built-in sales!

The flexibility and classic beauty of Revco Bilt-Ins open new horizons in design. Distinctive finishes include stainless steel, copper-glo, 28 custom colors and matching wood panel doors. Standard 3-foot modular refrigerators and freezers may be built in almost anywhere . . . singly or in combination, over and under or side by side., In any arrangement, Revco units are the easiest built-ins to install! Leading kitchen manufacturers prefabricate cabinets for Revco Bilt-Ins, or cabinets may be custom built to specifications furnished. These are the reasons why Revco is the unquestioned leader in the built-in refrigeration field.

NOW! Years ahead *Gourmet*



The new Revco Gourmet refrigerator achieves *exclusive* cooling efficiency. Chilled, purified air gently circulates throughout the entire food compartment. Constant temperature is maintained *automatically* and is precisely controlled at settings from 32 to 45 degrees, to preserve foods at their peak of flavor and freshness.

REVCO

Setting trends in refrigeration since 1938.

Send for your free copy of

"ARCHITECT'S INFORMATION FILE"

today!



REVCO, Inc., Deerfield, Mich., Dept. HH-108

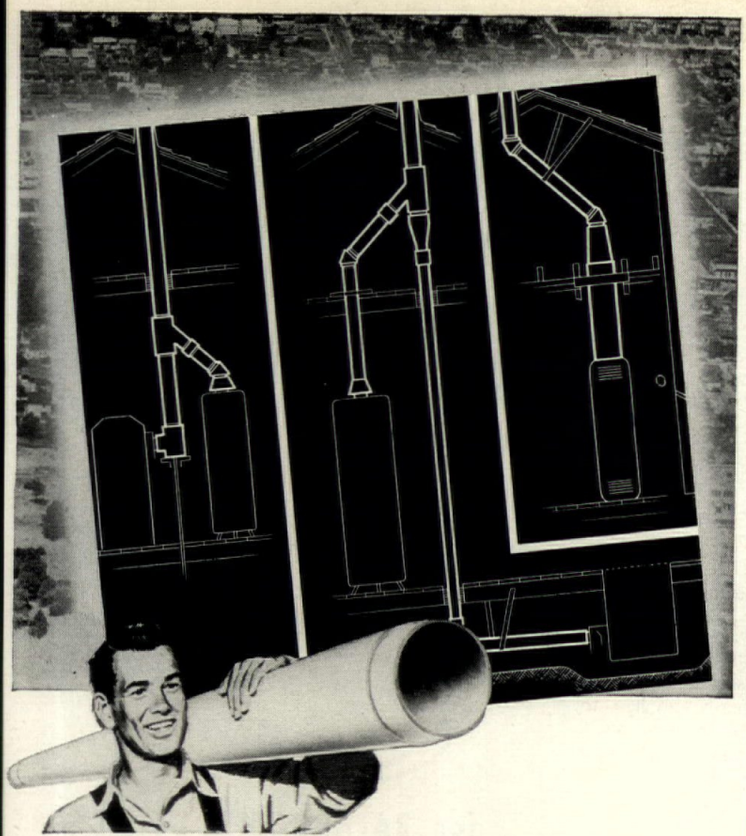
Please send me the complete Architect's Information File on Revco Bilt-In Refrigerators and Freezers.

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Street _____

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Transite Gas Vent simplifies your problems in layout and installation

THE illustration shows how Transite's wide range of Gas Vent Pipe lengths, nipples and fittings simplifies layout and saves installation time in gas-venting systems for residential construction.

With eight different Transite® lengths and nipples to choose from—all machined both ends—you have more ways to solve design problems even at closures! The right length for the job reduces cutting and machining—makes the job easier—faster.

Transite helps reduce assembly and installation time. There's no need for special assembly tools . . . or special training. Strong, tough—Transite holds its shape—bracing and supporting can be done anywhere along the barrel—not just at the joint.

Once in service, Transite assures safe, efficient venting of gas-burning appliances. Non-metallic, it does not rust. Tough and strong, does not dent or deform. Cannot burn. Available in round or oval shapes. Over 100 million feet in service. Listed by The Underwriters Laboratories, Inc. continuously since 1932.

And for perimeter heating-cooling systems, reduce your installation costs with TRANSITE AIR DUCT. For in-slab duct work the job-site economies of Transite Air Duct are unmatched. Saves time, saves concrete (needs no concrete encasement—can be laid directly on the prepared bottom). Won't float—needs no special supports or anchoring. Just position ducts and pour concrete. Transite won't crush, dent or deform.

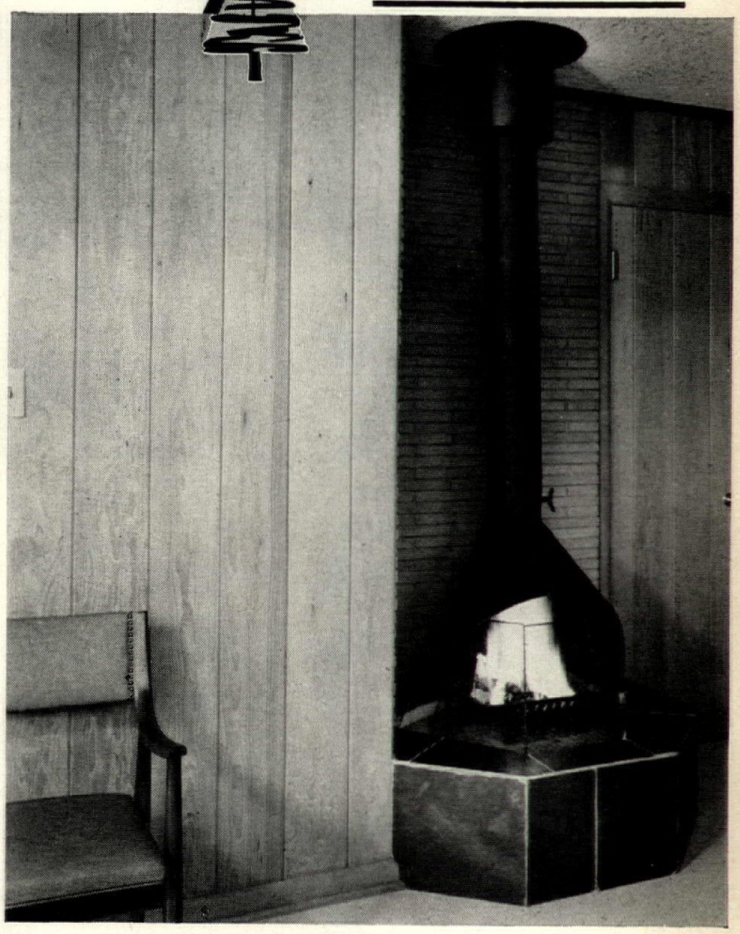
Write for your copies of brochures TR-198A (Gas Vent) and TR-144A (Air Duct). Address: Johns-Manville, Box 14 HH, New York 16, N. Y.

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100 YEARS OF QUALITY PRODUCTS . . . 1858-1958

JOHNS-MANVILLE JM PRODUCTS

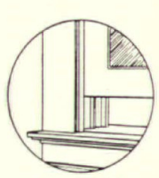
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Now Hemlock, one of the Northwest's most abundant woods, is available in decorative new tongue-and-groove paneling. Tyee offers Hemlock paneling in both woodlife treated and natural finishes. Order it precision cut to your exact specifications complete with matching base and ceiling mouldings. Builders like its economy price... home owners rave about its lasting, natural grained decorator appearance.

ORDER ALL YOUR QUALITY FINISH MATERIAL FROM TYEE . . .

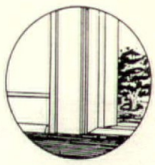
Tyee pre-cut, precision trims and mouldings speed construction. In every Tyee order you can be sure of top quality materials custom-cut and packed to your exact requirements. Tyee trims and mouldings are used in thousands of homes and by many famous large builders throughout the nation.



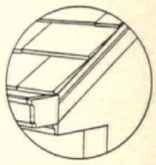
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Publications

All kinds of concrete tools

Stow Mfg Co has a new 20-page catalog with their complete line of concrete equipment: vibrators, rotary trowels, grinders, vibrating screeds, etc. Also given, complete directions for building your own prestressed screed beam.

Stow Mfg Co, Binghampton, NY.

For copy, check No. 65 on cupoon, p 210

Goldblatt's new catalog covers power and hand equipment in 88 pages, shows tools for brick masons, plasterers, lathers, drywall applicators, tile setters, cement finishers, general contractors, includes everything from mechanical trowels to workclothes.

Goldblatt Tool Co, Kansas City, Mo.

For copy, check No. 66 on coupon, p 210

Film on swimming pool safety

Olin Mathieson has a 20-minute color film on water purification for private swimming pools. Film shows algae and bacteria that can infect pools and how to use hypochlorite to overcome them. Owners are shown how to figure how much HTH to use and how to apply it.

Olin Mathieson, Baltimore 3.

For copy, write direct to manufacturer.

Transite pipe for slab heating

New J-M folder points out ways to save time in heating and cooling installations with asbestos-cement pipe. High strength, low weight pipes need no encasement, no special support, can be used in 10′ runs.

Johns-Manville, New York City.

For copy, check No. 67 on coupon, p 210

Power for your job site

New folder from D W Onan tells how to pick a power plant and how to get the most out of the generator on the job, describes portable equipment to deliver 500 to 10,000 w.

D W Onan & Sons, Minneapolis.

For copy, check No. 68 on coupon, p 210

"How to judge a light bulb"

This 8-page booklet explains the relation between lamp life and the light produced, how light output decreases as life increases. Charts explain the economics of lighting.

Westinghouse, Bloomfield, NJ.

For copy, check No. 69 on coupon, p 210

What to do about lightning

Lightning Protection Institute offers a 20-page booklet "Lightning Facts and Figures" to tell how lightning happens, how often it is likely to strike, what can be done to protect all kinds of buildings. Includes data on codes and inspections.

Lightning Protection Institute, Chicago.

For copy, check No. 70 on coupon, p 210

Dust-tight filter systems

Latest brochure from George Evans Corp describes new Seal-Tight filter bank assemblies—a system of steel-framed aluminum filters with polyvinyl chloride gaskets to prevent air seepage between units or between unit and frame.

George Evans Corp, Moline, Ill.

For copy, check No. 71 on coupon, p 210

continued on p 210

MEET THE Ventrola "410" COMB. LIGHT & VENTILATOR



for BATHROOMS, UTILITY and RECREATION ROOMS!

here's QUALITY you can Prove... at a PRICE

This newest member of a distinguished family is engineered to Ventrola's standards of beauty, performance and dependability. It is designed for all types of bathrooms, utility and recreation rooms. The entire Ventrola line will spell EXTRA profits for you because they're EASY TO SELL . . . EASY TO INSTALL!

Ventrola offers RANGE HOODS in 3 push-button controlled series: 1400 solid top hood—1600 twin blower hood ventilator and the 1500 hood ventilator—(a COMPLETE BUILDER'S PACKAGE . . . factory installed fan housing . . . unit pre-wired, ready to install. Includes CONCEALED LIGHT FIXTURE, PUSH-BUTTON CONTOLS, FILTER and REDUCER with POSITIVE BACK-DRAFT SHUTTERS.)

UL and CSA approved

"AS REFRESHING AS THE GREAT OUTDOORS"

products of
VENTROLA MANUFACTURING COMPANY
OWOSSO, MICHIGAN

Write for COMPLETE Information

Ventrola Manufacturing Co.,
Owosso, Michigan

Please send catalog of Ventrola products

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Firm.....
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City.....State.....

☐ Bldr. ☐ Distr. ☐ Dealer ☐ Arch. ☐ Other

NEW... 12" and 16" Bevel Siding with Phenolic Resin Surface and 1/2" Rabbet Joint!

"GPX YELLOW" saves paint time — helps paint last 5-10 years! Tough, phenolic resin surface needs no sanding or sealing, prevents surface checking. One coat each of primer and finish is superior to three coats of paint on other siding!

Self-aligning lap slashes installation time! Only first course needs leveling. Solid lumber back nails flush to wall, eliminates furring strips, wedges. Ends butt tightly without mastic. No splitting, no waste.

½" Rabbet gives 96% net coverage! This new siding is completely weather-tight with only ½" lap! And it can save you up to $40 per M sq. ft. over other kinds of bevel siding, on coverage alone.



Protective packaging! Heavy-duty G-P carton contains 64 ft. Easy to store, one man can handle. Keeps siding clean and damage-free until used.

GPX® YELLOW BEVEL SIDING

made only by

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Lumber & Hardboard • Pulp & Paper • Plywood & Redwood

Call your G-P dealer or send coupon for information.

GEORGIA-PACIFIC

Dept. HH 1058 Equitable Bldg., Portland, Oregon

Please send me complete information on GPX Yellow Bevel Siding.

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here is a big EXTRA profit you're missing in home sales today



. . . you make it when you sell a ROMAR swimming pool as part of the property package, with homes you are building

. . . or when you sell a ROMAR swimming pool to owners of homes you have built

QUALITY-CONSTRUCTED residential swimming pools have gone far beyond the fad stage. Discriminating home owners can be sold pools in the $2000-$4000 class (builder cost $1100-$2400) as a valid addition to their property resale values . . . as well as a "vacations at home" feature.

EVERYONE PROFITS when a ROMAR POOL is sold as part of the new home's original mortgage deal, or added later as a property improvement. It means only a small monthly-payment extra to the owner. The builder, contractor, architect, lender and realtor all profit.

ROMAR, a pioneer in the manufacture of complete pool packages, has established a policy of franchising community-development-minded builders as dealers and installers. The quality of our equipment . . . all sold under a single warranty and responsibility . . . and our business record . . . will stand close scrutiny.

USE your salesmen, crews and equipment in their spare time, the year around, to sell and install ROMAR POOLS. You make a handsome profit on each sale . . . you add a new, immediately profitable department to your business without one dollar of investment . . . re-sell old customers and create new customers galore.

WRITE ROMAR

Write, wire or telephone for details of our Builder Franchise, and a complete kit of literature on **Romar Pools.**

Romar Filter Corporation

Swimming Pool Equipment Division

120 W. MELVINA STREET • MILWAUKEE 12

EDgewood 2-9070

Data file on sewage plants

Kenco Pump's new data file describes two above ground disposal systems, three underground systems, the Nodak system, a basement apartment unit, and a flood control unit. File also includes engineering data on Kenco's package alternator and two new septic tank pumps.

Kenco Pump Div, Lorain, Ohio.

For copy, check No. 72 on coupon below

To sell ceramic tile . . .

Mosaic Tile Co has a new consumer booklet called "Discover Ceramic Tile" that you can distribute at your model opening or as a direct-mail sales aid. The 12-page pamphlet is in four colors, shows bath, kitchen, family room, terrace, and dining room wall uses.

Mosaic Tile Co, Zanesville, Ohio.

For copy, check No. 73 on coupon below

Want more information?

The numbers below are keyed to the items described on the New Products and Publications pages. Check the ones that interest you and mail the coupon to:

House & Home
Room 1021A, 9 Rockefeller Plaza, New York 20, N. Y.

New Lockset

1. ☐ Challenger Lock Co's 900 series

New Installation Methods

2. ☐ Kwikset
3. ☐ Yale & Towne
4. ☐ Sargent & Co
5. ☐ Russell & Erwin
6. ☐ P & F Corbin
7. ☐ Dexter Lock Division

Decorative Hardware

9. ☐ Yale & Towne
10. ☐ Sargent & Co
11. ☐ National Lock Co
12. ☐ Dexter Lock Division
13. ☐ Russell & Erwin
14. ☐ Challenger Lock Co.
15. ☐ Kwikset
16. ☐ P & F Corbin
17. ☐ Weiser & Co

Sliding Door Hardware

18. ☐ Kennatrack
19. ☐ Stanley Works
20. ☐ McKinney Mfg Co
21. ☐ Yale & Towne
22. ☐ Washington Steel Products
23. ☐ John Sterling Corp
24. ☐ Leigh Building Products
25. ☐ American Screen Products
26. ☐ Grant Pulley & Hardware Corp
27. ☐ Big-A Mfg Co
28. ☐ Ready Hung Door
29. ☐ Paine Lumber Co

Door Hinges

30. ☐ Bakewell Products
31. ☐ C Hager & Sons
32. ☐ Stanley Works
33. ☐ Laurence Bros

Screen Door Locks

34. ☐ Yale & Towne
35. ☐ Russell & Erwin
36. ☐ National Hardware Corp
37. ☐ Security Storm Lock & Hardware

Door Closers

38. ☐ Norton Door Closer
39. ☐ Yale & Towne
40. ☐ H B Ives Co

Miscellaneous

41. ☐ Continental intercom components
42. ☐ Rangaire budget intercom
43. ☐ C & H Range hood intercom
44. ☐ Flush Wall intercom
45. ☐ Patco Lowline baseboard
46. ☐ Embassy Red-E-Pac baseboard
47. ☐ DeVilbiss spray equipment
48. ☐ Kohler Ledgend lavatory

PUBLICATIONS

49. ☐ Chicago Cut Stone Contractors
50. ☐ Southern Sash aluminum windows
51. ☐ Kohler all-brass fittings catalog
52. ☐ Ceco Steel Guide to lath
53. ☐ Lawn Institute booklet
54. ☐ Aetna paneling data
55. ☐ Arrow-Hart wall-plug chart
56. ☐ Chem-Weld plastic pipe guide
57. ☐ How to stop mortar cracking
58. ☐ LuReCo licensing agreement
59. ☐ HHFA on urban renewal
60. ☐ HHFA digest of planning laws
61. ☐ Agrock installation guide
62. ☐ US Plywood textured walls
63. ☐ International Harvester earthmovers
64. ☐ Masco intercom catalog
65. ☐ Stow concrete tool catalog
66. ☐ Goldblatt concrete tool catalog
67. ☐ J-M Transite pipe folder
68. ☐ Onan generator guide
69. ☐ Westinghouse light booklet
70. ☐ Lightning protection booklet
71. ☐ Evans dust-tight filters
72. ☐ Kenco sewage disposal guide
73. ☐ Mosaic tile sales aid
74. ☐ How to use Dee steel stakes

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OCCUPATION _____ TITLE _____

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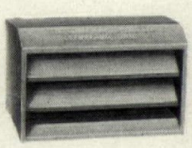
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AND CRAWL SPACE DOORS

7919-DB

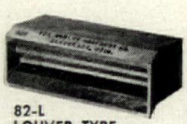
FOR
★ FASTER INSTALLATIONS
★ TROUBLE-FREE OPERATION
★ LOWER COSTS

The complete Donley line of Ventilators and Crawl Space Doors shown below includes sizes and types to meet all the ventilating requirements of basementless homes. Backed by over a half-century of experience in manufacturing metal products for building, these Donley products provide fast, easy installations for the builder and long, troublefree life for the home owner.

For further information check with your Donley Dealer or write today for Donley's new catalog of Metal Products for Building.

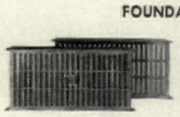


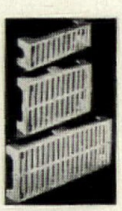
85-L
LOUVER TYPE
Aluminum vent with two sloping baffles. Measures 8⅛ x 2¼ x 2¾ inches.



82-L
LOUVER TYPE
Cast aluminum vent with sloping baffles. Measures 5 x 2¼ x 2¾ inches.

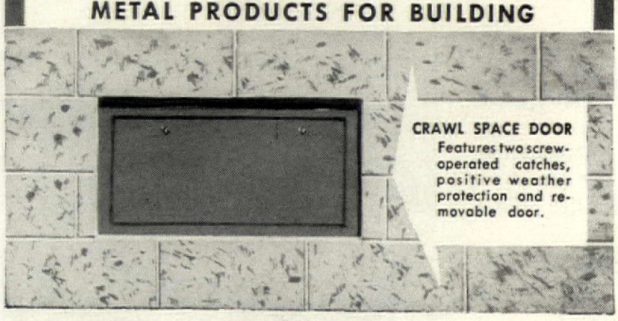
ADJUSTABLE
FOUNDATION VENTILATOR
Features controlled air intake. Available in cast iron, cast or pressed aluminum.





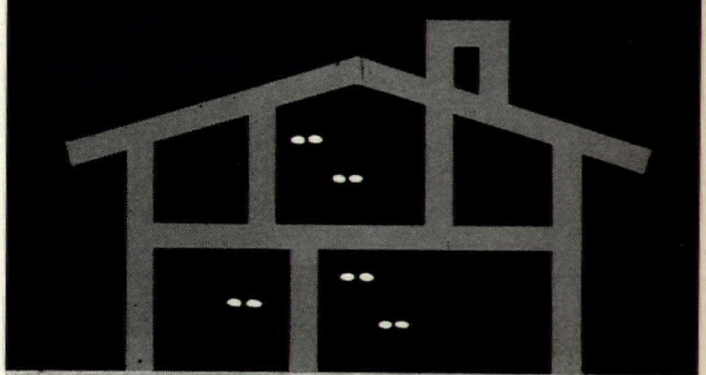
OTHER TYPES
Available in many sizes and styles for brick or concrete block walls.

THE Donley BROTHERS COMPANY
13960 Miles Ave. Cleveland 5, Ohio
METAL PRODUCTS FOR BUILDING



CRAWL SPACE DOOR
Features two screw-operated catches, positive weather protection and removable door.

SOME PEOPLE ARE IN THE DARK MORE THAN THEY SHOULD BE*



* their new house wasn't wired the modern TOUCH-PLATE way

...but today builders and architects can provide for more convenient use of light by specifying a TOUCH-PLATE system with its

- Remote control of electrical circuits
- Silent switches at **every** entry to **each** room
- Safe low voltage with no danger of shock
- Touch switch operation

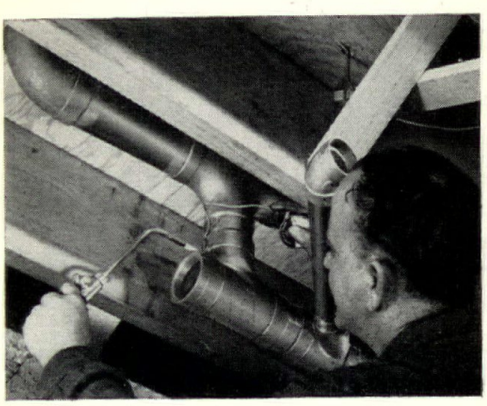
NEW Catalog and Instruction Book Available. Write to Dept. 10

TOUCH-PLATE MFG. CORP.
P.O. BOX 1970 • LONG BEACH, CALIFORNIA

HOW TO SAVE ON HOMES...

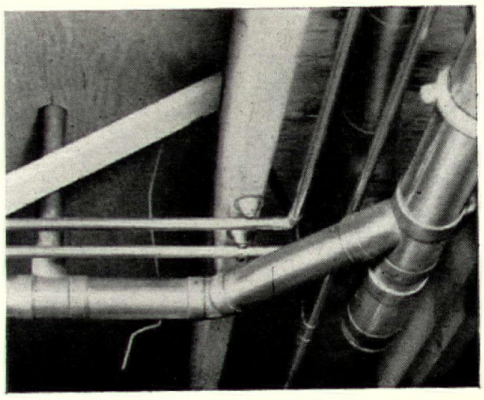


EXTRA WORK ELIMINATED—Chase Copper Tube Drainage, Waste and Vent (DWV) lines fit within standard 2″ x 4″ partitions—can be installed without costly, time-wasting furring out and additional carpentry. This means appreciable cost savings!



◀ **QUICK, CLEAN JOINTS**—Chase copper tube and fittings are quickly joined with strong, pressure-tight solder joints. You save on materials, time and labor in every house you build. Ask Chase for detailed figures.

NEATER, BETTER APPEARANCE ▶—Clean, trim lines and attractive color add to the appearance of the basement. Buyers *know* copper tube plumbing has always been the sign of the quality-built home—giving you an added sales advantage.



WITH CHASE COPPER TUBE

for Drainage, Waste and Vent Lines



SAVE TIME, LABOR—Copper Tube DWV systems can be pre-fabricated in on-site operations, quickly installed by one or two men. The smooth interior of a copper tube system assures free flow for years of trouble-free service, and copper plumbing will not clog with rust!

You can do a better job with copper plumbing!

But don't take our word for it. There are two factors to consider when it comes to cost:

Copper—long-known as the quality metal for plumbing systems—now costs less than ever.

With Chase Copper Drainage Tube you can do a better job—get a better, more trouble-free drainage, waste and vent line (DWV) installation—in less time than other materials require. That's because copper is easier to cut, easier to join, requires fewer joints, and handles easier.

Ask your plumbing contractor to figure a copper DWV installation for your homes. You'll quickly see—when you consider cost of materials and cost of installation together—*copper actually costs less than any rustable pipe.*

There's just no reason to use anything but the best plumbing you can buy—LIFELINES of Chase Copper Tube—in every home you build. Talk it over with your plumbing contractor!

FREE! All-new book by Chase gives you detailed report on how and where you can make house-by-house savings with plumbing systems of copper tube. It's yours for the asking—from Chase, Waterbury 20, Conn.



Chase®

BRASS & COPPER CO.
WATERBURY 20, CONN.
Subsidiary of
Kennecott Copper Corporation

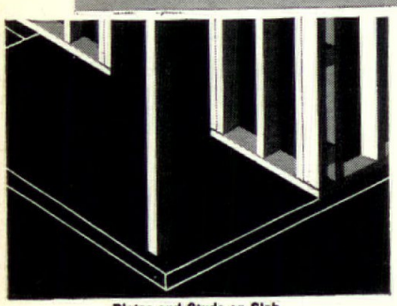
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recommended practice

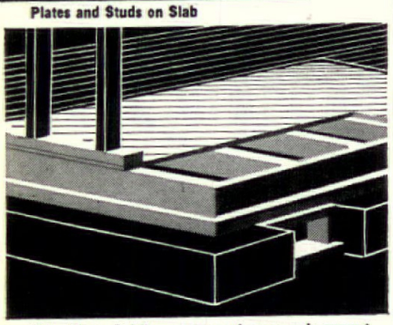
for termite and decay resistant design

Wolmanized®

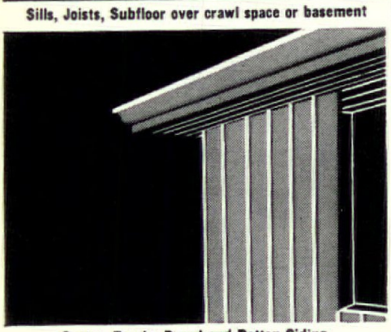
PRESSURE-TREATED LUMBER



Plates and Studs on Slab



Sills, Joists, Subfloor over crawl space or basement



Gutter, Fascia, Board and Batten Siding

Wood can remain your most versatile and economical material for residential, commercial and institutional construction even in areas of termite infestation—or where conditions are conducive to decay . . . IF you specify Wolmanized pressure-treated lumber.

Wolmanized treated lumber, plywood and laminated timbers are chemically protected against insect and fungi attack and remain clean, paintable and easy to handle.

The cost? Less than 2% of the total in houses . . . even lower in other buildings!

W-49

Wolmanized Preservative Department, Koppers Company, Inc.
753 Koppers Building, Pittsburgh 19, Pennsylvania

Please send me 16-page booklet on Wolmanized pressure-treated lumber in light and heavy construction.

Name_____

Firm_____

Address_____

City, Zone, State_____

KOPPERS **Wolmanized® Lumber**

WOOD



Use this special wood products coupon

. . . for more information about the new products that today's progress in wood technology have made possible. The numbers below are keyed to the products listed in the article on wood, pp 122-141. Check the ones that interest you and mail the coupon to:

House & Home

Room 1021 A, 9 Rockefeller Plaza, New York 20, NY

TREATMENT AND UPGRADING

W 1 ☐ Koppers fire-retardent treated lumber, p 125
W 2 ☐ Weyerhauser siding, sheathing, p 125
W 3 ☐ Potlatch laminated framing, decking, p 125

HARDBOARDS

W 4 ☐ Armstrong's predecorated hardboards, p 127
W 5 ☐ Hines patterned hardboards, p 127
W 6 ☐ Celotex embossed hardboard, p 127
W 7 ☐ Georgia-Pacific specialty hardboards, p 127
W 8 ☐ Masonite hardboards with wood finish, p 127
W 9 ☐ Abitibi "plateboard," p 127
W 10 ☐ Forest Fiber ⅜" siding sheets, p 127
W 11 ☐ Evans acoustical hardboards, p 127
W 12 ☐ Fiberesin plastic panels, p 127
W 13 ☐ Simpson roof deck, p 127
W 14 ☐ US Gypsum "Duron" hardboard, p 127

PARTICLE BOARDS

W 15 ☐ Pacific Plywood "Par-Wood," "Par-Tex," "Par-Tile," p 127
W 16 ☐ Long-Bell "Flakewood," "Flakewall," p 127
W 17 ☐ Pack River "Tenex" paneling, p 127
W 18 ☐ Columbia Hardboard underlayment, p 127
W 19 ☐ CFI Boards finish flooring, p 127
W 20 ☐ Roddis ⅜" "Architectural Craftwall," p 127
W 21 ☐ National Starch core stock, panels, p 127
W 22 ☐ Westvaco core stock and panels, p 127

CLEAR FINISHES

W 23 ☐ US Plywood lacquer-surfaced and Firzite-finished panels, p 129
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W 31 ☐ Roddis wood face veneered paneling, p 129
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MECHANICAL FINISHES

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W 40 ☐ Vaughan Millwork solid core panels, p 133
W 41 ☐ Rilco trough deck, p 134

NAME_____

OCCUPATION_____ TITLE_____

FIRM_____

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CITY_____ STATE_____

IMPORTANT:

House & Home's servicing of this coupon expires Dec 1958.

(*You will find* H&H's regular *new products coupon on p 210*)

the only complete annual report

on

PREFABRICATION

in one great source book

You won't want to miss the one complete report published annually on the prefabrication industry, now having its biggest year on record. So be sure to get

HOUSE & HOME'S

6th ANNUAL DIRECTORY

OF

PREFABRICATION

DECEMBER 1958

- manufacturers' new models and designs
- manufacturers' distribution and price lines
- technical developments in materials and methods
- what's ahead for '59
- listing of all prefab firms and their executive officers
- industry trends

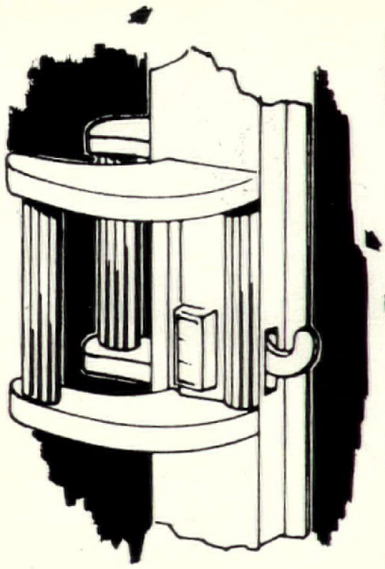
READERS:

If you are not already a subscriber to HOUSE & HOME, mail the order card bound into this issue . . . please, today.

ADVERTISERS:

Reservations for space in this December issue must be in by:
October 13 for multi-color ads
October 20 for black & white ads
Plate closing dates are one week later.

UP-ACTION LATCH *prevents breakage*



The latch in Slide-View sliding glass doors is concealed, spring loaded, and has an "up" action that prevents the possibility of breakage.

Latch is fully adjustable for easier installation and more positive fit between lock stile and closing jamb . . . another feature that adds to Slide-View quality.

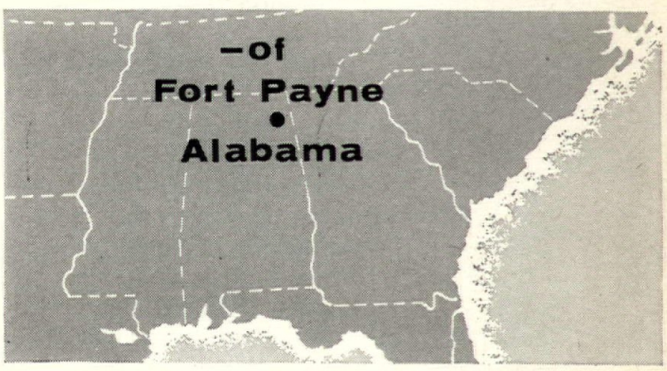
Our 10th Year fabricating sliding glass doors exclusively.

Slide-View

Write for brochure and prices

DOOR AND WINDOW CO.
P.O. Box 409, El Monte, California
"BRINGS THE OUTSIDE INSIDE"

KINGSBERRY HOMES

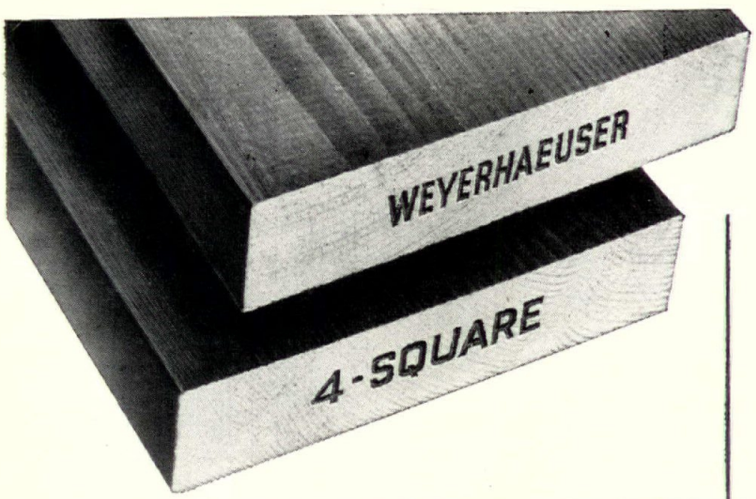


125% MORE BUILDERS

First 6 months 1958 compared to first 6 months 1957

Join the parade. If you build or sell anywhere on this map, we invite you to inquire about a profitable Kingsberry franchise for your territory. Write to:

LUMBER FABRICATORS, Inc., Fort Payne, Alabama
A PIONEER OF THE MANUFACTURED-HOME INDUSTRY



this brand name on lumber also means

kiln-dried

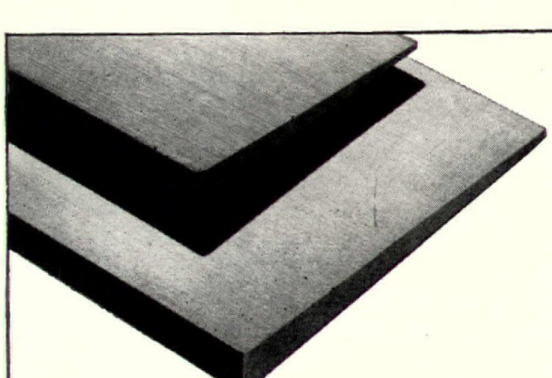
CONTROLLED KILN SEASONING IS ONE OF MANY REASONS WHY *WEYERHAEUSER 4-SQUARE* MEANS UNIFORMLY HIGH QUALITY LUMBER

The use of well known, trade-marked materials always wins appreciative approval from home and building owners. When they see quality going into their jobs they accept delivery with complete confidence.

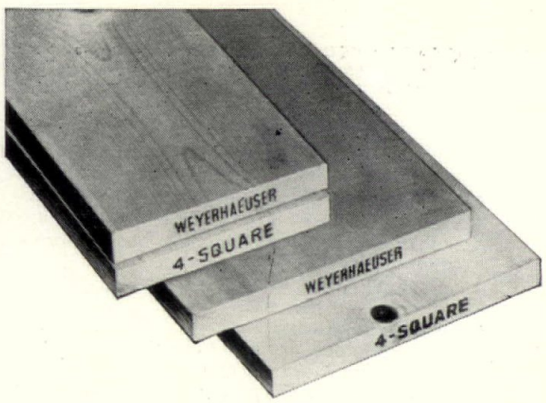
Builders and owners see in the Weyerhaeuser 4-Square brand name a familiar mark of quality. This confidence is the result of many years of advertising and, more important, the fine record of performance of every product bearing the Weyerhaeuser 4-Square trade mark.

One of the reasons for the widespread acceptance of Weyerhaeuser 4-Square is the fact that every piece of lumber bearing this brand has been scientifically seasoned. Controlled seasoning means that this lumber has good dimensional stability and maximum strength and stiffness. Kiln-drying also enhances surface appearance and improves paintability. These characteristics, plus the benefits of precision sawing and surfacing, proper grading, careful handling and shipping, mean that Weyerhaeuser 4-Square Lumber is always a reliable product.

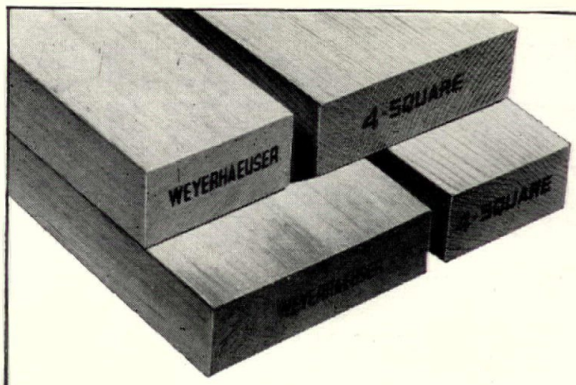
Why not take advantage of the fact that buyers know and recognize Weyerhaeuser 4-Square as a mark of quality? See this lumber, in a wide range of species, grades and sizes, at the office of your local Weyerhaeuser 4-Square Lumber Dealer.



SIDING—Weyerhaeuser 4-Square bevel and bungalow siding takes and holds paint exceptionally well because it has been scientifically kiln-dried.

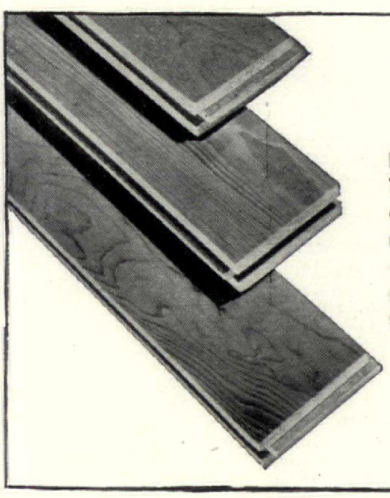


BOARDS—Every board bearing this brand name has been seasoned prior to manufacture.

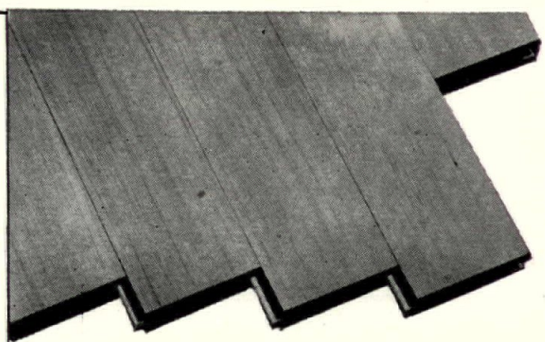


DIMENSION—Scientifically kiln-dried lumber contributes to sound, durable construction.

lumber



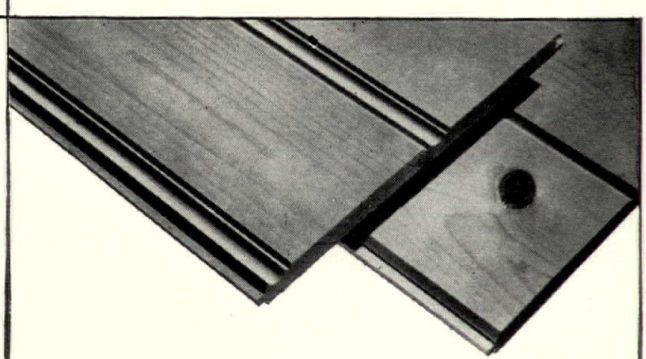
END MATCHED—This popular item eliminates waste and reduces building time—proper seasoning gives it maximum strength.



FLOORING—Controlled kiln-drying means a firm, smooth surface for superior appearance and wearability.

Weyerhaeuser Sales Company

ST. PAUL 1, MINNESOTA



PANELING—Seasoned Weyerhaeuser 4-Square paneling presents a dry, smooth surface for a variety of finishes.



NEW FOR DRY WALL CONSTRUCTION

kewanee Universal "Kwik-Fit" STEEL DOOR FRAMES

(Made under Patent No. 2,835,933)

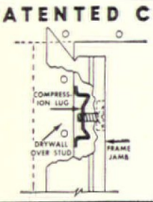
with the SMOOTH, RANCH-TRIM LOOK!

SAVE MONEY!

FOR SWING OR SLIDING DOORS • INSTALL OVER DRY WALL

- **FAST INSTALLATION** (Less than 5 minutes per door opening) Jamb, stop and trim formed into a complete frame.
- **SILENT DOOR OPERATION** Rubber bumpers on strike jamb.
- **REDUCES PAINTING COSTS** Metal frame has smooth finish — no sanding, or nail hole or corner filling required.
- **CONSTRUCTION** Made of best grade bonderized galvanized steel — for a lifetime of rust-resistance and paint adhesion.

PATENTED COMPRESSION LUG ASSEMBLY



Assures perfectly locked and mitered corners every time. Patented and concealed jamb anchorage at bottom insures rigid construction.

- **HANDY PACKAGING** Complete frame packed in individual carton for easy handling . . . protection against damage.

OTHER KEWANEE STEEL DOOR FRAMES

"PLASTERITE" } installed before plaster is applied

"WAL-TITE" } install before dry wall is applied

"KWIK-FIT" } applies over dry wall

If your dealer is not yet offering Kewanee Steel Door Frames, ask him to get complete information . . . or write to us direct.

kewanee Manufacturing Co.

1058 FULLER AVENUE • KEWANEE, ILLINOIS

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*** (1) Air leakage. (2) Sticky opening and closing. (3) Rattles and squeaks. (4) Rain and wind leakage. (5) Deterioration of weatherseal.**



This weatherstripping—available at no extra cost on standard windows and doors—solves all five problems. It's woven wool pile, silicone-treated weatherstripping made by Schlegel.

*Solve these five window, door problems

Sealing weather in or out need no longer be a problem. Many manufacturers now provide the protection of Schlegel Woven Pile on their standard doors and windows.

HOW IT WORKS. Schlegel Weatherstripping is resilient wool pile. It cushions the door or window snugly, yet forms a pathway of tiny "ball bearings" for easy movement. There's no metal-to-metal screech, no plastic squeak.

LASTING PROTECTION. Well-engineered doors and windows sealed with Schlegel Woven Pile, treated with Dow-Corning silicone, offer amazing protection against wind and driving rain. Early installations (now over 20 years old) still work perfectly.

BIG CHOICE OF WINDOW, DOORS. Manufacturers offer this superior weatherstripping in many varieties of doors and windows. You'll find 49 styles, plus names and addresses of leading manufacturers, listed in our "blue-chip" directory. Write for a copy today.

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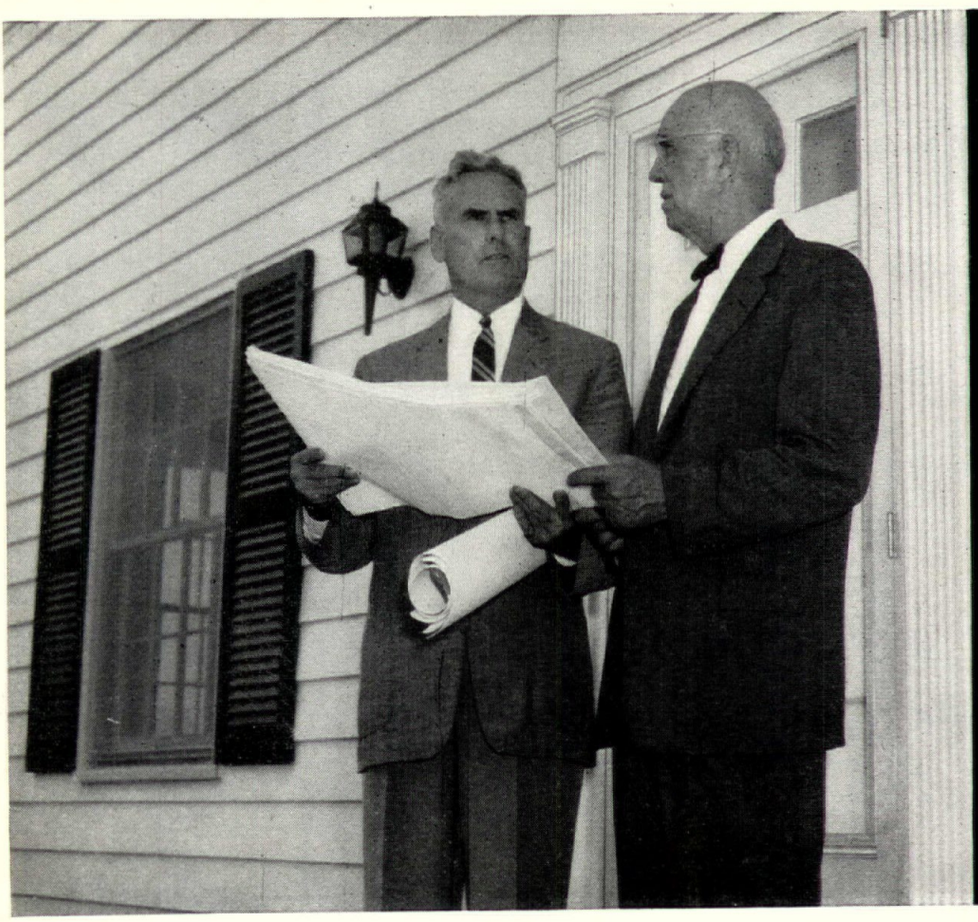
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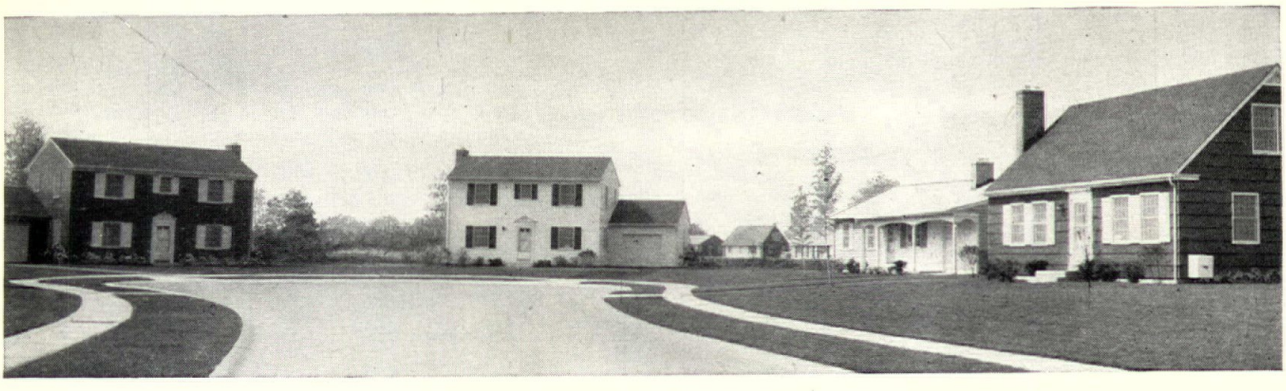
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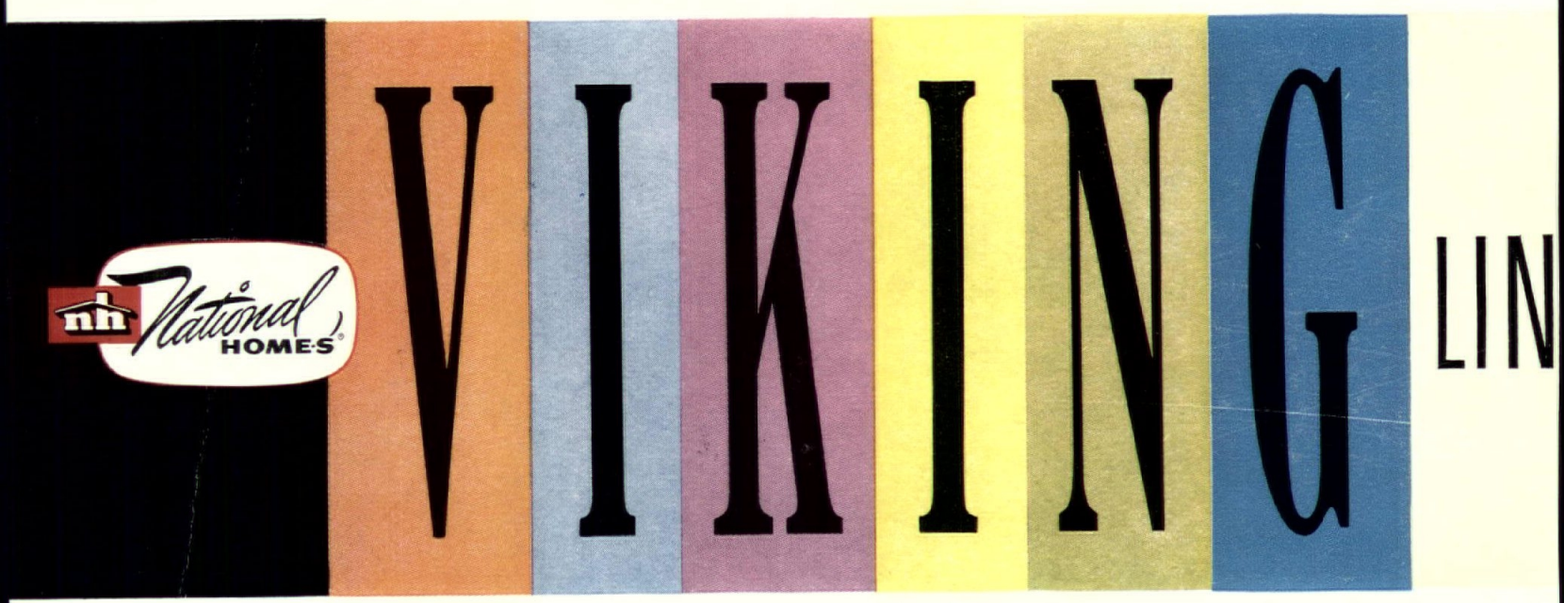
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And the entire exterior, both roof and walls, will be lastingly maintenance-free . . . fire-safe . . . weather protected. It will look freshly painted . . . stay new . . . year after year after year!

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